# TITLE 12. NATURAL RESOURCES

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# TITLE 12. NATURAL RESOURCES

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(Authority: A.R.S. § 30-651 et seq.)

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*Article 4, consisting of Sections R12-1-401 through R12-1-431, Appendices A and B, and forms ARRA-6, ARRA-7, and ARRA-8, repealed effective August 10, 1994 (Supp. 94-3).*

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*Article 11, consisting of R12-1-1101 through R12-1-1104, repealed effective June 13, 1997 (Supp. 97-2).*

**ARTICLE 12. ADMINISTRATIVE PROVISIONS**

*Article 12, consisting of R12-1-1201 through R12-1-1203 and R12-1-1205, repealed effective January 2, 1996 (Supp. 96-1).*

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*Article 13, consisting of Sections R12-1-1301 through R12-1-1308, adopted effective November 5, 1993 (Supp. 93-4).*

*Article 13, consisting of Sections R12-1-1301 through R12-1-1303, repealed effective November 5, 1993 (Supp. 93-4).*

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**ARTICLE 15. TRANSPORTATION**

*Article 15 consisting of Sections R12-1-1501 through R12-1-1508, and Appendix A adopted effective December 20, 1985 (Supp. 85-6).*

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## ARTICLE 1. GENERAL PROVISIONS

**R12-1-101. Scope**

**A.** Except as otherwise specifically provided, these rules apply to all persons who receive, possess, use, transfer, own, or acquire any source of radiation.

**B.** This Chapter does not apply to a person to the extent such person is subject to regulation by the Nuclear Regulatory Commission.

**C.** State control of source material, by-product material, and special nuclear material in quantities not sufficient to form a critical mass is subject to the provisions of the agreement between the state and the U.S. Nuclear Regulatory Commission, signed March 30, 1967, incorporated by reference in this rule and on file with the Office of the Secretary of State, and to 10 CFR 150, 1996 Edition, published January 1, 1996, incorporated by reference and on file with the Agency and the Office of the Secretary of State. These incorporations by reference contain no future editions or amendments.

**Historical Note**

Former Rule Section A.1; Former Section R12-1-101 repealed, new Section R12-1-101 adopted effective June 30, 1977 (Supp. 77-3). Amended effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-102. Definitions**

Terms defined in A.R.S. § 30-651 have the same meanings when used in this Chapter. The following terms have the definitions set forth below. Additional definitions used only in a certain Article will be found in that Article.

"$A_1$" means the maximum activity of special form radioactive material permitted in a Type A package. "$A_2$" means the maximum activity of radioactive material, other than special form radioactive material, permitted in a Type A package. These values are either listed in 10 CFR 71, Appendix A, Table A-1, or may be derived in accordance with the procedure prescribed in 10 CFR 71, Appendix A, 1996 Edition, published January 1, 1996, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

"Absorbed dose" means the energy imparted by ionizing radiation per unit mass of irradiated material. The units of absorbed dose are the gray (Gy) and the rad.

"Accelerator" means any machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of 1 MeV. For purposes of this definition, "particle accelerator" is an equivalent term.

"Accelerator produced material" means any material made radioactive by irradiating it in a particle accelerator.

"Act" means A.R.S. Title 30, Chapter 4.

"Activity" means the rate of disintegration, transformation, or decay of radioactive material. The units of activity are the becquerel (Bq) and the curie (Ci).

"Adult" means an individual 18 or more years of age.

"Agency", or "ARRA" means the Arizona Radiation Regulatory Agency.

"Agreement State" means any state with which the United States Nuclear Regulatory Commission has entered into an effective agreement under Section 274(b) of the Atomic Energy Act of 1954, as amended (73 Stat. 689).

"Airborne radioactive material" means any radioactive material dispersed in the air in the form of aerosols, dusts, fumes, mists, vapors, or gases.

"Airborne radioactivity area" means a room, enclosure, or area in which airborne radioactive materials, composed wholly or partly of licensed radioactive material, exist in concentrations:

In excess of the derived air concentrations (DACs) specified in Appendix B, Table I of Article 4 of these rules, or

That an individual present in the area without respiratory protective equipment could exceed, during the hours an individual is present in a week, an intake of 0.6% of the annual limit on intake (ALI) or 12 DAC-hours.

"ALARA" means as low as is reasonably achievable, making every reasonable effort to maintain exposures to radiation as far below the dose limits in these rules as is practical, consistent with the purpose for which the licensed or registered activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed or registered sources of radiation in the public interest.

"Analytical x-ray equipment" means equipment used for x-ray diffraction or x-ray-induced fluorescence analysis.

"Analytical x-ray system" means a group of components utilizing x-rays to determine the elemental composition or to examine the microstructure of materials.

"Background radiation" means radiation from cosmic sources; not technologically enriched naturally occurring radioactive materials, including radon, except as a decay product of source or special nuclear material less than 10 times the quantities listed in Article 4, Appendix B, Table II; and global fallout as it exists in the environment from the testing of nuclear explosive devices. "Background radiation" does not include sources of radiation from radioactive materials regulated by the Agency.

"Becquerel" (Bq) means the International System (SI) unit for activity and is equal to 1 disintegration per second (dps or tps).

"Bioassay" means the determination of kinds, quantities, or concentrations, and in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of these rules, "radiobioassay" is an equivalent term.

"Brachytherapy" means a method of radiation therapy in which an encapsulated source or group of sources is utilized to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary or interstitial application.

"By-product material" means:

Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; and

The tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "by-product material" within this definition.

"Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The 1st calendar quarter of each year shall begin in January and subsequent calendar quarters shall be so arranged such that no day is included in more than 1 calendar quarter and no day in any 1 year is omitted from inclusion within a calendar quarter. A licensee or registrant shall not change the method of determining calendar quarters for purposes of this Chapter except at the beginning of a calendar year.

"Calibration" means the determination of:

The response or reading of an instrument relative to a series of known radiation values over the range of the instrument or

The strength of a source of radiation relative to a standard.

"Certifiable cabinet x-ray system" means an existing uncertified x-ray system that meets or has been modified to meet the certification requirements specified in 21 CFR 1020.40, 1995 Edition, published April 1, 1995, by the Office of Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Agency and the Office of Secretary of State. This incorporation by reference contains no future editions or amendments.

"Certified cabinet x-ray system" means an x-ray system that has been certified in accordance with 21 CFR 1010.2, as being manufactured and assembled on or after April 10, 1975, in accordance with the provisions of 21 CFR 1020.40, both references 1995 Edition, published April 1, 1995, incorporated by reference and on file with the Agency and the Office of Secretary of State. These incorporations by reference contain no future editions or amendments.

"CFR" means Code of Federal Regulations.

"Chelating agent" means amine polycarboxylic acids, hydroxycarboxylic acids, gluconic acid, and polycarboxylic acids.

"Civil penalty" means the monetary fine which may be imposed on licensees by the Agency, pursuant to A.R.S. § 30-687, for violations of the Act, this Chapter, or license conditions.

"Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.

"Committed dose equivalent" ($H_{T,50}$) means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

"Committed effective dose equivalent" ($H_{E,\ 50}$) is the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to each of these organs or tissues ($H_{E,50} = \Sigma\ w_T H_{T,50}$).

"Curie" means a unit of quantity of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of $3.7E + 10^{10}$ transformations per second (tps).

"Current license" or registration means a license or registration issued by the Agency and for which the licensee has paid the license or registration fee for the then current year pursuant to R12-1-1304.

"Deep-dose equivalent" ($H_d$), which applies to external whole body exposure, is the dose equivalent at a tissue depth of 1 centimeter (1000 mg/cm$^2$).

"Depleted uranium" means the source material uranium in which the isotope uranium-235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.

"Dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, committed effective dose equivalent, total organ dose equivalent, or total effective dose equivalent. For purposes of these rules, "radiation dose" is an equivalent term.

"Dose equivalent ($H_T$)" means the product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.

"Dose limits" means the permissible upper bound of radiation doses established in accordance with these rules. For purposes of these rules, "limits" is an equivalent term.

"Dosimeter" (see "Individual monitoring devices").

"Effective dose equivalent ($H_E$)" means the sum of the products of the dose equivalent to each organ or tissue ($H_T$) and the weighting factor ($w_T$) applicable to each of the body organs or tissues that are irradiated ($H_E = \Sigma\, w_T H_T$).

"Effluent release" means any disposal or release of radioactive material into the ambient atmosphere, soil, or any surface or subsurface body of water.

"Embryo/fetus" means the developing human organism from conception until the time of birth.

"Enclosed beam x-ray system" means an analytical x-ray system constructed in such a way that access to the interior of the enclosure housing the x-ray source during operation is precluded except through bypassing of interlocks or other safety devices to perform maintenance or servicing.

"Enclosed radiography" means industrial radiography conducted by using cabinet radiography or shielded room radiography.

"Cabinet radiography" means industrial radiography conducted by using an x-ray machine in an enclosure not designed for human admittance and which is so shielded that every location on the exterior meets the conditions for an "unrestricted area".

"Shielded room radiography" means industrial radiography conducted using an x-ray machine in an enclosure designed for human admittance and which is so shielded that every location of the exterior meets the conditions for an "unrestricted area".

"Entrance or access point" means any opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed radioactive materials. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.

"Exhibit" for purposes of these rules, is equivalent in meaning to the word "Schedule" as found in previously issued rules, current license conditions, and regulation guide.

"Explosive material" means any chemical compound, mixture, or device which produces a substantial instantaneous release of gas and heat spontaneously or by contact with sparks or flame.

"Exposure" means:

Being subjected to ionizing radiation or radioactive materials.

The quotient of dQ by dm where "dQ" is the absolute value of the total charge of the ions of 1 sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass "dm" are completely stopped in air. The special unit of exposure is the roentgen (R).

"Exposure rate" means the exposure per unit of time.

"External dose" means that portion of the dose equivalent received from any source of radiation outside the body.

"Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.

"Eye dose equivalent" means the external dose equivalent to the lens of the eye at a tissue depth of 0.3 centimeter (300 mg/$cm^2$).

"Fail-safe characteristics" means a design feature which causes beam port shutters to close, or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

"Field radiography" means industrial radiography, utilizing a portable or mobile x-ray system, which is not conducted in a shielded enclosure.

"Field station" means a facility where radioactive sources may be stored or used and from which equipment is dispatched to temporary job sites.

"Former U.S. Atomic Energy Commission (AEC) or U.S. Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.

"Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency (EPA), 40 CFR 190 and 191, 1995 Edition, published July 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State, under the authority of the Atomic Energy Act of 1954, as amended, that impose limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material. This incorporation by reference contains no future editions or amendments.

"Gray" (Gy) means the International System (SI) unit of absorbed dose and is equal to 1 joule per kilogram. One Gray equals 100 rad.

"Hazardous waste" means those wastes designated as hazardous in A.R.S. § 49-921(5).

"Healing arts" means the practice of medicine, dentistry, osteopathy, podiatry, chiropractic, and veterinary medicine.

"Health care institution" means every place, institution, or building which provides facilities for medical services or other health-related services, not including private clinics or offices which do not provide overnight patient care.

"High radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour at 30 centimeters from any source of radiation or from any surface that the radiation penetrates.

"Human use" means the internal or external administration of radiation or radioactive materials to human beings.

"Impound" means to abate a radiological hazard. Actions which may be taken by the Agency in impounding a source of radiation include seizing the source of radiation, controlling access to an area, and preventing a radiation machine from being utilized.

"Individual" means any human being.

"Individual monitoring" means the assessment of:

Dose equivalent

By the use of individual monitoring devices, or

By the use of survey data; or

Committed effective dose equivalent

By bioassay; or

By determination of the time-weighted air concentrations to which an individual has been exposed, that is, DAC-hours. (See the definition of DAC-hours in Article 4).

"Individual monitoring devices" means devices designed to be worn by a single individual for the assessment of dose equivalent. For purposes of these rules, "dosimeter", "personnel dosimeter", and "personnel monitoring equipment" are equivalent terms. Examples of individual monitoring devices are film badges, thermoluminescent dosimeters (TLDs), pocket ionization chambers, and personal air sampling devices.

"Industrial radiography" means the examination of the macroscopic structure of materials by non-destructive methods utilizing sources of ionizing radiation.

"Injection tool" means a device used for controlled subsurface injection of radioactive tracer material.

"Inspection" means an examination or observation by a representative of the Agency, including but not limited to tests, surveys, and monitoring to determine compliance with rules, orders, requirements and conditions of the License or certificate of registration.

"Interlock" means a device arranged or connected such that the occurrence of an event or condition is required before a 2nd event or condition can occur or continue to occur.

"Internal dose" means that portion of the dose equivalent received from radioactive material taken into the body.

"Irradiate" means to expose to radiation.

"Laser" (light amplification by the stimulated emission of radiation) means any device which can produce or amplify electromagnetic radiation with wave lengths in the range of 180 nanometers to 1 millimeter primarily by the process of controlled stimulated emission.

"License" means the grant of authority, issued pursuant to Article 3 and 14 of this Chapter and A.R.S. §§ 30-671, 30-672, and 30-721 et seq., to acquire, possess, transfer, and use sources of radiation. The types of licenses issued by the Agency are described in R12-1-1302.

"Licensed material" means radioactive material received, possessed, used, transferred, or disposed of under a general or specific license issued by the Agency.

"Licensed practitioner" means a person licensed or otherwise authorized by law to practice medicine, dentistry, osteopathy, chiropractic, podiatry, or naturopathy in this state.

"Licensee" means any person who is licensed by the Agency under this Chapter to acquire, possess, transfer, or use sources of radiation.

"Licensing State" means any state having regulations equivalent to this Chapter relating to, and an effective program for the regulation of, naturally occurring and accelerator-produced radioactive material (NARM).

"Limits" ("See Dose limits").

"Local components" means those parts of an analytical x-ray system that are struck by x-rays, including radiation source housings, port and shutter assemblies, collimator, sample holders, cameras, goniometer, detectors and shielding but not including power supplies, transformers, amplifiers, readout devices, and control panels.

"Logging supervisor" means the individual who provides personal supervision of the utilization of sources of radiation at the well site.

"Logging tool" means a device used subsurface to perform well logging.

"Lost or missing licensed or registered source of radiation" means licensed or registered source of radiation the location of which is unknown. Included are licensed radioactive material or a registered radiation source that has been shipped but has not reached its planned destination and whose location cannot be readily traced or ascertained in the transportation system.

"Low-level waste" means waste material which contains radioactive nuclides in concentrations or quantities which exceed applicable standards for unrestricted release but does not include:

High-level waste, such as irradiated reactor fuel, liquid waste from reprocessing irradiated reactor fuel, or solids into which any such liquid waste has been converted;

Waste material containing transuranic elements with contamination levels greater than 10 nanocuries per gram (370 kilobecquerels per kilogram) of waste material;

The tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

"Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material or exceeding 4 times Type B quantities as sealed sources but does not include nuclear medicine programs, universities, industrial radiographers, or small industrial programs. Type A and B quantities are defined in 10 CFR 71.4, 1996 Edition, published January 1, 1996, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

"Medical dose" means a radiation dose intentionally delivered to an individual for medical examination, diagnosis, or treatment.

"Member of the public" means any individual except when that individual is receiving an occupational dose.

"MeV" means Mega Electron Volt which equals 1 million volts ($10^6$ eV).

"Mineral logging" means any well logging performed in a borehole drilled for the purpose of exploration for minerals other than oil or gas.

"Minor" means an individual less than 18 years of age.

"Monitoring" means the measurement of radiation, radio active material concentrations, surface area activities, or quantities of radioactive material, and the use of the results of these measurements to evaluate potential exposures and doses. For purposes of these rules, "radiation monitoring" and "radiation protection monitoring" are equivalent terms.

"Multiplier" means a letter representing a number. The use of a multiplier is based on the code given below:

| | *Multiplier* | |
|---|---|---|
| *Prefix* | *Symbol* | *Value* |
| eka | E | $10^{18}$ |
| peta | P | $10^{15}$ |
| tera | T | $10^{12}$ |
| giga | G | $10^{9}$ |
| mega | M | $10^{6}$ |
| kilo | k | $10^{3}$ |
| milli | m | $10^{-3}$ |

| | | |
|---|---|---|
| micro | u | $10^{-6}$ |
| nano | n | $10^{-9}$ |
| pico | p | $10^{-12}$ |
| femto | f | $10^{-15}$ |
| atto | a | $10^{-18}$ |

"NARM" means any naturally occurring or accelerator-produced radioactive material. It does not include by-product, source, or special nuclear material. This term should not be confused with "NORM" which is defined as naturally occurring radioactive material.

"Normal operating procedures" means the entire set of instructions necessary to accomplish the intended use of the source of radiation. These procedures shall include, but are not limited to, sample insertion and manipulation, equipment alignment, routine maintenance by the licensee, and data recording procedures which are related to radiation safety.

"Natural radioactivity" means the radioactivity of naturally occurring radioactive substances.

"NRC" means Nuclear Regulatory Commission, the U.S. Nuclear Regulatory Commission, or its duly authorized representatives.

"Nuclear waste" means any highway route controlled quantity (defined in 49 CFR 173.403, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Secretary of State, containing no future editions or amendments) of source, by-product, or special nuclear material required to be in NRC-approved packaging while transported to, through, or across state boundaries to a disposal site, or to a collection point for transport to a disposal site. Additional requirements associated with transportation of radioactive material can be found in Article 15.

"Occupational dose" means the dose received by an individual in a restricted area in the course of employment while engaged in activities licensed or registered by the Agency in which the individual's assigned duties involve exposure to sources of radiation, whether in the possession of the licensee, registrant, or other person. Occupational dose does not include dose received: from background radiation, as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the public.

"Open beam system" means an analytical x-ray system in which an individual could place some body part in the primary beam path during normal operation.

"Package" means the packaging together with its radioactive contents as presented for transport.

"Particle accelerator" (see "Accelerator").

"Permanent radiographic installation" means a fixed, shielded installation or structure designed or intended for industrial radiography and in which industrial radiography is regularly performed.

"Personnel dosimeter" (see "Individual monitoring devices").

"Personnel monitoring equipment" (see "Individual monitoring devices").

"Personal supervision" means supervision in which the supervising individual is physically present at the site where sources of radiation and associated equipment are being used, watching the performance of the supervised individual and in such proximity that immediate assistance can be given if required.

"Pharmacist" means an individual licensed by this state to compound and dispense drugs, prescriptions, and poisons.

"Physician" means an individual licensed pursuant to A.R.S. Title 32, Chapters 13 or 17.

"Primary beam" means radiation which passes through an aperture of the source housing by a direct path from the x-ray tube or a radioactive source located in the radiation source housing.

"Public dose" means the dose received by a member of the public from radiation and to radioactive material released by the licensee or registrant, or exposure to sources of radiation used in licensed or registered operations. It does not include an occupational dose, a dose received from background radiation, a dose received as a patient from medical practices, or a dose from voluntary participation in medical research programs.

"Pyrophoric liquid" means any liquid that ignites spontaneously in dry or moist air at or below 130° F (54.4° C).

"Pyrophoric solid" means any solid material, other than one classed as an explosive, which under normal conditions is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited readily and, when ignited, burns so vigorously and persistently that it creates a serious transportation, handling, or disposal hazard. Included are spontaneously combustible and water-reactive materials.

"Qualified expert" means an individual certified in the appropriate field by the American Board of Radiology or the American Board of Health Physics, or having equivalent qualifications which provide the knowledge and training to measure ionizing radiation, to evaluate safety techniques, and to advise regarding radiation protection needs; or an individual certified in Therapeutic Radiological Physics or X-ray and Radium Physics by the American Board of Radiology, or having equivalent qualifications that provide training and experience in the clinical applications of radiation physics to radiation therapy, to calibrate radiation therapy equipment. The detailed requirements for a particular qualified expert are provided in the respective Articles of these rules.

"Quality Factor" (Q) means the modifying factor, listed in Tables I and II of this Article, that is used to derive dose equivalent from absorbed dose.

"Quarter" means a period of time equal to 1/4 of the year observed by the licensee, approximately 13 consecutive weeks, providing that the beginning of the 1st quarter in a year coincides with the starting date of the year and that no day is omitted or duplicated in consecutive quarters.

"Rad" means the special unit of absorbed dose. One rad equals 100 ergs per gram, or 0.01 Gray.

"Radiation" means alpha particles, beta particles, gamma rays, x-rays, neutrons, high-speed electrons, high-speed protons, and other particles capable of producing ions. For purposes of these rules, this term is synonymous with ionizing radiation. Equivalent terminology for non-ionizing radiation is defined in Article 14.

"Radiation area" means any area accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.05 mSv (0.005 rem) in 1 hour at 30 centimeters from the source of radiation or from any surface that the radiation penetrates.

"Radiation dose" (see "Dose").

"Radiation safety officer" (RSO) means the individual designated by the licensee or registrant who has the knowledge, authority, and responsibility to apply appropriate radiation protection principles to ensure radiation safety and compliance with the Act, this Chapter and any license, or registration conditions.

"Radioactive marker" means radioactive material placed subsurface or on a structure intended for subsurface use for the purpose of depth determination or direction orientation.

"Radioactive material" means any solid, liquid, or gas which emits radiation spontaneously.

"Radioactivity" means emission of electromagnetic energy or particles or both during the transformation of unstable atomic nuclei.

"Radiographer" means any individual who performs or personally supervises industrial radiographic operations and who is responsible to the licensee or registrant for assuring compliance with the requirements of this Chapter and all conditions of the license or certificate of registration.

"Radiographer's assistant" means any individual who, under the personal supervision of a radiographer, uses sources of radiation, radiographic exposure devices, related handling tools, or survey instruments in industrial radiography.

"Radiographic exposure device" means any instrument containing a sealed source, in which the sealed source or its shielding may be moved or otherwise changed from a shielded to unshielded position for purposes of making an industrial radiographic exposure.

"Registrant" means any person who is registered with the Agency and is legally obligated to register with the Agency pursuant to these rules and the Act.

"Registration" is the process by which a person becomes a registrant pursuant to Article 2 of this Chapter. With the exception of registration of persons who install or service radiation machines, the types of registrations issued by the Agency are described in R12-1-1302.

"Regulations of the U.S. Department of Transportation" means the federal regulations in 49 CFR 100 through 199, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

"Rem" means the special unit of dose equivalent (see "Dose equivalent"). The dose equivalent in rem is equal to the absorbed dose in rad multiplied by the quality factor (1 rem - 0.01 sievert).

"Research and Development" means exploration, experimentation, or the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes. Research and Development does not include the internal or external administration of radiation or radioactive material to human beings.

"Restricted area" means any area where the licensee or registrant controls access for purposes of protecting individuals from exposure to radiation and radioactive material. A restricted area does not include any areas used for residential quarters, although a room or separate rooms in a residential building may be set apart as a restricted area.

"Roentgen" (R) means the special unit of exposure and is equal to the quantity of x or gamma radiation which causes ionization in air equal to 258 microcoulomb per kilogram (see "Exposure").

"Safety system" means any device, program, or administrative control designed to ensure radiation safety.

"Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.

"Shallow dose equivalent" ($H_S$), which applies to the external exposure of the skin or an extremity, means the dose equivalent at a tissue depth of 0.007 centimeter (7 mg/cm$^2$) averaged over an area of 1 square centimeter.

"Shielded position" means the location within a radiographic exposure device or storage container which, by manufacturer's design, is the proper location for storage of the sealed source.

"Sievert" means the SI unit of dose equivalent (see "Dose equivalent"). The dose equivalent in sievert is equal to the absorbed dose in gray multiplied by the quality factor (1 Sv = 100 rem).

"Site boundary" means that line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee or registrant.

"Source changer" means a device designed and used for replacement of sealed sources in radiographic exposure devices, including those also used for transporting and storage of sealed sources.

"Source holder" means a housing or assembly into which a radioactive source is placed for the purpose of facilitating the handling and use of the source in well-logging operations.

"Source material" means:

Uranium or thorium, or any combination of uranium or thorium, in any physical or chemical form; or

Ores that contain by weight 1/20 of 1% (0.05%) or more of uranium, thorium, or any combination of uranium and thorium.

Source material does not include special nuclear material.

"Source material milling" means any activity that results in the production of by-product material as defined by the 2nd paragraph under the definition of "By-product material".

"Source of radiation" means any radioactive material or any device or equipment emitting, or capable of producing, radiation.

"Special form radioactive material" means radioactive material that satisfies all of the following conditions:

It is either a single solid piece or is contained in a sealed capsule that can be opened only by destroying the capsule;

The piece or capsule has at least 1 dimension not less than 5 millimeters (0.2 inch); and

It satisfies the test requirements specified in 10 CFR 71, 1996 Edition, published January 1, 1996, incorporated by reference in this rule and on file with the Agency and the Office of the Secretary of State. This incorporation by

reference contains no future editions or amendments. A special form encapsulation designed in accordance with the U.S. Nuclear Regulatory Commission requirements in effect on June 30, 1983, and constructed prior to July 1, 1985, may continue to be used. A special form encapsulation constructed after June 30, 1985, shall meet requirements of this definition applicable at the time of its construction.

"Special nuclear material in quantities not sufficient to form a critical mass" means Uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; Uranium-233 in quantities not exceeding 200 grams; Plutonium in quantities not exceeding 200 grams; or any combination of them in accordance with the following formula: for each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such ratios for all of the kinds of special nuclear material in combination shall not exceed 1. For example, the following quantities in combination would not exceed the limitation and are within the formula:

$$\frac{X \text{ gms U-235}}{350} + \frac{Y \text{ gms U-233}}{200} + \frac{Z \text{ gms Pu}}{200} \leq 1$$

"Storage area" means any location, facility, or vehicle which is used to store, transport, or secure a radiographic exposure device, storage container, sealed source, or other source of radiation when it is not in use.

"Storage container" means a device in which sealed sources are transported or stored.

"Subsurface tracer study" means the release of a substance tagged with radioactive material for the purpose of tracing the movement or position of the tagged substance in the well-bore or adjacent formation.

"Survey" means an evaluation of the production, use, release, disposal, or presence of sources of radiation or any combination thereof under a specific set of conditions to determine actual or potential radiation hazards. Such evaluations include, but are not limited to, tests, physical examination and measurements of levels of radiation or concentration of radioactive material present.

"TEDE" means Total Effective Dose Equivalent, the sum of the deep-dose equivalent for external exposures and the committed effective dose equivalent for internal exposures.

"Teletherapy" means therapeutic irradiation in which the source of radiation is at a distance from the body.

"Temporary job site" means any location where sources of radiation are used other than the specified locations listed on a license document. Storage of sources of radiation at a temporary jobsite shall not exceed 6 months unless the Agency has granted an amendment authorizing storage at that jobsite.

"Test" means the process of verifying compliance with an applicable rule, order, or license condition.

"These rules" means all Articles of 12 A.A.C. 1.

"Total Effective Dose Equivalent" (TEDE) means total effective dose equivalent, the sum of the deep-dose equivalent for external exposures and the committed effective dose equivalent for internal exposures.

"Total Organ Dose Equivalent" (TODE) means total organ dose equivalent, the sum of the deep-dose equivalent and the committed dose equivalent to the organ receiving the highest dose as described in R12-1-419(D)(1)(d) of these rules.

"Unrefined and unprocessed ore" means ore in its natural form prior to any processing, such as grinding, roasting, beneficiating, or refining.

"Unrestricted area" means any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive material. Any area used for residential quarters is an unrestricted area.

"U.S. Department of Energy" means the Department of Energy established by Public Law 95-91, August 4, 1977, 91 Stat. 565, 42 U.S.C. 7101 et seq., to the extent that the Department exercises functions formerly vested in the U.S. Atomic Energy Commission, its Chairman, members, officers, and components; and transferred to the U.S. Energy Research and Development Administration and to the administrator of that agency under Sections 104(b), (c), and (d) of the Energy Reorganization Act of 1974 (Public Law 93-438, October 11, 1974, 88 Stat. 1233 at 1237, 42 U.S.C. 5814, effective January 19, 1975) and retransferred to the Secretary of Energy under Section 301(a) of the Department of Energy Organization Act (Public Law 95-91, August 4, 1977, 91 Stat. 565 at 577-578, 42 U.S.C. 7151, effective October 1, 1977).

"Waste" (see "Low-level waste").

"Waste handling licensees" means persons licensed to receive and store radioactive wastes prior to disposal and persons licensed to dispose of radioactive waste.

"Week" means 7 consecutive days starting on Sunday.

"Well-bore" means a drilled hole in which wireline service operations and subsurface tracer studies are performed.

"Well-logging" means the lowering and raising of measuring devices or tools which may contain sources of radiation into well-bores or cavities for the purpose of obtaining information about the well and adjacent formations.

"Whole body" means, for purposes of external exposure, head, trunk including male gonads, arms above the elbow, or legs above the knee.

"Wireline" means an armored cable containing 1 or more electrical conductors which is used to lower and raise logging tools in the well-bore.

"Wireline service operation" means any evaluation or mechanical service which is performed in the well-bore using devices on a wireline.

"Worker" means any individual engaged in work under a license issued by the Agency and controlled by employment or contract with a licensee.

"WL" means working level, any combination of short-lived radon daughters in 1 liter of air that will result in the ultimate emission of 1.3E + 5 MeV of potential alpha particle energy. The short-lived radon daughters are -- for radon-222: polonium-218, lead-214, bismuth-214, and polonium-214; and for radon-220: polonium-216, lead-212, bismuth-212, and polonium-212.

"WLM" means working level month, an exposure to 1 working level for 170 hours (2,000 working hours per year divided by 12 months per year is approximately equal to 170 hours per month).

"Workload" means the degree of use of an x-ray or gamma-ray source per unit time.

"Year" means the period of time beginning in January used to determine compliance with the provisions of these rules. The licensee or registrant may change the starting date of the year used to determine compliance by the licensee or registrant provided that the change is made at the beginning of the year and that no day is omitted or duplicated in consecutive years.

**Historical Note**

Former Rule Section A.2. Former Section R12-1-102 repealed, new Section R12-1-102 adopted effective June 30, 1977 (Supp. 77-3). Amended effective November 19, 1982 (Supp. 82-6). Amended effective February 25, 1985 (Supp. 85-1). Amended by adding a new paragraph (31), subparagraph (w) and renumbering the former paragraph (31), subparagraphs (w) through (z) accordingly effective November 28, 1986 (Supp. 86-6). Amended by adding a new paragraph (34) and renumbering the former paragraphs (34) through (68) accordingly effective June 26, 1987 (Supp. 87-2). Amended effective April 2, 1990 (Supp. 90-2). Amended effective November 5, 1993 (Supp. 93-4). Amended effective February 18, 1994 (Supp. 94-1). Amended effective August 10, 1994 (Supp. 94-3). Amended effective January 2, 1996 (Supp. 96-1). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-103. Exemptions**

**A.** Common and contract carriers, freight forwarders, and warehousemen who are subject to 49 CFR 107.103, 107.109, 107.111, 107.113, 171.2, 171.3, 172.200, 173.1, 173.3, 173.4, 173.401, 174.7, 175.3, 175.5, 175.10, 176.3, 176.5, 176.11, 176.24, 176.27, and 177.801, 1995 Edition, published October 1, 1995, of the U.S. Department of Transportation, or 39 CFR 111.1 of the U.S. Postal Service, 1995 Edition, published January 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State, are exempt from this Chapter. In addition, they are exempt from this Chapter to the extent that they store radioactive material, for periods of less than 72 hours, in the regular course of their carriage for another. Private carriers who are subject to the regulations of the U.S. Department of Transportation are exempt from this Chapter to the extent that they transport radioactive material. Common, contract, and private carriers who are not subject to the regulations of the U.S. Department of Transportation or the U.S. Postal Service are subject to this Chapter. The above incorporation by reference contains no future editions or amendments.

**B.** Any U.S. Department of Energy contractor or subcontractor and any U.S. Nuclear Regulatory Commission contractor or subcontractor of the following categories operating within this state are exempt from this Chapter to the extent that such contractor or subcontractor under the contract receives, possesses, uses, transfers, or acquires sources of radiation:

1. Prime contractors performing work for the Department of Energy at U.S. Government-owned or controlled sites, including the transportation of sources of radiation to or from such sites and the performance of contract services during temporary interruptions of such transportation;
2. Prime contractors of the Department of Energy performing research or development, manufacture, storage, testing or transportation of nuclear weapons or components thereof;
3. Prime contractors of the Department of Energy using or operating nuclear reactors or other nuclear devices in a United States Government-owned vehicle or vessel; and
4. Any other prime contractor or subcontractor of the Department of Energy or of the Nuclear Regulatory Commission when the state and the Nuclear Regulatory Commission jointly determine:
   a. That the exemption of the prime contractor or subcontractor is authorized by law; and
   b. That under the terms of the contract or subcontract, there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety.

**C.** Any licensee who delivers to a carrier for transport any package which contains radioactive material having a specific activity of 74 kBq/kg (2 nanocuries per gram) or less, is exempt from the provisions of this Chapter with respect to that package.

**Historical Note**

Former Rule Section A.3; Former Section R12-1-103 repealed, new Section R12-1-103 adopted effective June 30, 1977 (Supp. 77-3). Amended effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-104. Prohibited Uses**

**A.** Hand-held fluoroscopic screens shall not be used.

**B.** Shoe-fitting fluoroscopic devices shall not be used.

**C.** Sources of ionizing radiation shall not be used for the purpose of screening or inspecting individuals for concealed weapons, hazardous materials, stolen property, illegal goods or contraband, except as specifically authorized by law.

**D.** Deliberate exposure of an individual to the useful beam of an ionizing radiation machine or to a radiation beam from a non-ionizing device, known to be harmful to human tissue, for training or demonstration purposes shall not be permitted unless there is also a medical or dental indication for the exposure and the exposure is prescribed by a licensed practitioner.

**Historical Note**

Former Rule Section A.4; Former Section R12-1-104 repealed, new Section R12-1-104 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-104 repealed, new Section R12-1-104 renumbered from R12-1-112 and amended effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-105. Units of Exposure and Dose**

**A.** As used in these rules, the unit of "exposure" is: [See definition in R12-1-102(41)].

**B.** As used in these rules, the units of "dose" are:

1. Gray is: [See definition in R12-1-102(53)].
2. Rad is: [See definition in R12-1-102(110)].
3. Rem is: [See definition in R12-1-102(124)].
4. Sievert is: [See definition in R12-1-102(132)].

**C.** As used in these rules, the quality factors for converting absorbed dose to dose equivalent are shown in Table I.

TABLE I
QUALITY FACTORS AND ABSORBED DOSE EQUIVALENCIES

| TYPE OF RADIATION | Quality Factor (Q) | Absorbed Dose Equal to a Unit Dose Equivalent[a] |
|---|---|---|

| | | |
|---|---|---|
| X, gamma, or beta radiation and high-speed electrons | | 1 |
| Alpha particles, multiple-charged particles, fission fragments, and heavy particles of unknown charge | 20 | 0.05 |
| Neutrons of unknown energy | 10 | 0.1 |
| High-energy protons | 10 | 0.1 |

[a]The absorbed dose in gray is equal to 1 Sv or the absorbed dose in rad is equal to 1 rem.

**D.** If it is more convenient to measure the neutron fluence rate than to determine the neutron dose equivalent rate in sievert per hour or rem per hour, 0.01 Sv (1 rem) of neutron radiation of unknown energies may, for purposes of these rules, be assumed to result from a total fluence of 25 million neutrons per square centimeter incident upon the body. If sufficient information exists to estimate the approximate energy distribution of the neutrons, the licensee or registrant may use the fluence rate per unit dose equivalent or the appropriate Q value from Table II to convert a measured tissue dose in gray or rad to dose equivalent in sievert or rem.

TABLE II

MEAN QUALITY FACTORS, Q, AND FLUENCE PER UNIT DOSE EQUIVALENT FOR MONOENERGETIC NEUTRONS

| | Neutron Energy (meV) | Quality Factor (Q) | Fluence per Unit Dose Equivalent[b] (neutrons $cm^{-2}$ $rem^{-1}$) | Fluence per Unit Dose Equivalent[b] (neutrons $cm^{-2}$ $Sv^{-1}$) |
|---|---|---|---|---|
| (thermal) | 2.5E-8 | 2 | 980E+6 | 980E+8 |
| | 1E-7 | 2 | 980E+6 | 980E+8 |
| | 1E-6 | 2 | 810E+6 | 810E+8 |
| | 1E-5 | 2 | 810E+6 | 810E+8 |
| | 1E-4 | 2 | 840E+6 | 840E+8 |
| | 1E-3 | 2 | 980E+6 | 980E+8 |
| | 1E-2 | 2.5 | 1010E+6 | 1010E+8 |
| | 1E-1 | 7.5 | 170E+6 | 170E+8 |
| | 5E-1 | 11 | 39E+6 | 39E+8 |
| | 1 | 11 | 27E+6 | 27E+8 |
| | 2.5 | 9 | 29E+6 | 29E+8 |
| | 5 | 8 | 23E+6 | 23E+8 |
| | 7 | 7 | 24E+6 | 24E+8 |
| | 10 | 6.5 | 24E+6 | 24E+8 |
| | 14 | 7.5 | 17E+6 | 17E+8 |
| | 20 | 8 | 16E+6 | 16E+8 |
| | 40 | 7 | 14E+6 | 14E+8 |
| | 60 | 5.5 | 16E+6 | 16E+8 |
| | 1E+2 | 4 | 20E+6 | 20E+8 |
| | 2E+2 | 3.5 | 19E+6 | 19E+8 |
| | 3E+2 | 3.5 | 16E+6 | 16E+8 |
| | 4E+2 | 3.5 | 14E+6 | 14E+8 |

[a]Value of quality factor (Q) at the point where the dose equivalent is maximum in a 30-centimeter diameter cylinder tissue-equivalent phantom.

[b]Monoenergetic neutrons incident normally on a 30-centimeter diameter cylinder tissue-equivalent phantom.

**Historical Note**

Former Rule Section A.5; Former Section R12-1-105 repealed, new Section R12-1-105 adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2). New Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-106. Units of Activity**

For purposes of these rules, activity is expressed in the SI unit of becquerel (Bq) or in the special unit of curie (Ci), or their multiples, or disintegrations or transformations per unit of time.

1. One becquerel (Bq) = (See definition in R12-1-102).
2. One curie (Ci) = (See definition in R12-1-102).

**Historical Note**

Former Rule Section A.6; Former Section R12-1-1-6 repealed, new Section R12-1-106 adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2). New Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-107. Repealed**

**Historical Note**

Former Rule Section A.7; Former Section R12-1-107 repealed, new Section R12-1-107 adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

**R12-1-108. Repealed**

**Historical Note**
Former Rule Section A.8; Former Section R12-1-108 repealed, new Section R12-1-108 adopted effective June 30, 1977 (Supp. 77-3). Change of address (Supp. 85-6). Section repealed effective April 2, 1990 (Supp. 90-2).

**R12-1-109. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

**R12-1-110. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

**R12-1-111. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

**R12-1-112. Renumbered**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-112 renumbered to R12-1-104 effective April 2, 1990 (Supp. 90-2).

**Appendix A. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective August 10, 1994 (Supp. 94-3).

**Appendix B. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective August 10, 1994 (Supp. 94-3).

## ARTICLE 2. RADIATION MACHINE FACILITY REGISTRATION OR LICENSING, INSTALLATION AND SERVICE REGISTRATION, AND MAMMOGRAPHIC FACILITY CERTIFICATION

**R12-1-201. Exemptions**

**A.** Electronic equipment that produces X-radiation incidental to its operation for other purposes is exempt from the registration and notification requirements of this Article, providing an exposure rate averaged over an area of 10 square centimeters (1.55 $in.^2$) does not exceed 129nC/kg per hour (0.5 milliroentgen per hour) at 5 cm (2.0 in.) from any accessible surface of such equipment. The production, testing, or factory servicing of such equipment shall not be exempt.

**B.** Radiation machines while in transit or storage incident thereto are exempt from the requirements of this Article.

**C.** Radiation machines rendered incapable of producing radiation are exempt from this Article.

**D.** The following nonionizing radiation machines are exempt from the registration requirement prescribed in this Article:

1. Radiofrequency emitting devices which are designed and marketed as consumer products, including but not limited to, microwave ovens, citizen band and amateur radio transmitters, and remote control transmitters used in toys and garage door openers;
2. Radiofrequency devices where the radiofrequency power input to the radiating element does not exceed 7 watts, provided the emission frequency of such devices does not exceed 1 Gigahertz;
3. All certified Class I, Class II, Class IIa, and Class IIIa laser products, except for those that allow access to Class IIIb or Class IV laser radiation during servicing, are exempted from these rules, provided that the laser product is maintained as a certified Class I, Class II, Class IIa, or Class IIIa laser product throughout its useful life;
4. Lasers in storage, during shipment or sale, provided such lasers are inoperable or not operated.

**Historical Note**
Former Rule Section B.3. Former Section R12-1-203 repealed, new Section R12-1-203 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-201 repealed, former Section R12-1-203 renumbered as R12-1-201 and amended effective November 22, 1988 (Supp. 88-4). Amended effective January 2, 1996 (Supp. 96-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-202. Application Requirements for Registration or Certification of Ionizing and Nonionizing Radiation Machine Facilities; Notification**

**A.** A person shall not receive, possess, use, or transfer a radiation machine except as authorized in this Article.

**B.** The owner or persons possessing any nonexempt radiation machine shall apply for registration of the machine with the Agency within 30 days after its acquisition. The person applying for registration of a radiation producing machine shall use the appropriate form in Appendix A of this Article.

**C.** The registrant shall notify the Agency within 30 days of any change to the information contained in the notice of registration and, when appropriate, certification issued pursuant to R12-1-208.

**D.** In addition to the application form or forms, the applicant shall remit the appropriate registration or licensing fee in R12-1-1306 and such other information as may be required to comply with R12-1-208.

**E.** With the application forms for registration of radiation machines, except dental and mammography facilities, the applicant shall provide a scale drawing of the room in which a stationary x-ray system is located. The drawing shall denote the type of materials and the thickness (or lead equivalence) of each barrier of the room (walls, ceilings, floors, doors, windows). The drawing shall also denote the type and frequency of occupancy in adjacent areas including those above and below the x-ray room of concern (for example, hallways, offices, parking lots, and lavatories). Estimates of workload shall also be provided with the drawing.

**Historical Note**
Former Rule Section B.4. Former Section R12-1-204 repealed, new Section R12-1-204 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-202 repealed, former Section R12-1-204 renumbered as R12-1-202 and amended effective November 22, 1988 (Supp. 88-4). Amended effective January 2, 1996 (Supp. 96-1). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective June 11, 1999 (Supp. 99-2).

**R12-1-203. Application for registration of servicing and installation**

**A.** Each person who is engaged in the business of installing or offering to install radiation machines or is engaged in the business of furnishing or offering to furnish radiation machine servicing or services in this state shall apply for registration of such services with the Agency within 30 days following the effective date of this Article. Subsequent applications shall be

submitted prior to furnishing or offering to furnish any such services.

**B.** Application for registration shall be completed on forms furnished by the Agency and shall contain all information required by A.R.S. § 30-672.01.

**Historical Note**
Former Rule Section B.5. Former Section R12-1-205 repealed, new Section R12-1-205 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-205 renumbered as R12-1-203 and amended effective November 22, 1988 (Supp 88-4).

**R12-1-204. Issuance of Notice of Registration**

**A.** Upon determining that the application meets the requirements of the Act and this Article, the Agency shall issue a Notice of Registration.

**B.** All radiation machines located at the same facility may be registered using 1 Notice of Registration.

**Historical Note**
Former Rule Section B.6. Former Section R12-1-206 repealed, new Section R12-1-206 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-206 renumbered as R12-1-204 and amended effective November 22, 1988 (Supp. 88-4). Amended effective January 2, 1996 (Supp. 96-1). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-205. Expiration of Notice of Registration or Certification**

A Notice of Registration, or certification issued pursuant to R12-1-208, shall expire at the end of the day on the date stated therein unless a registrant or certificate holder, not less than 30 days prior to the expiration of the registrant's or certificate holder's existing Notice of Registration or certification, has filed an application in proper form for renewal. If a timely application for renewal has been filed, the existing Notice of Registration or certification shall not expire until the application status has been finally determined by the Agency.

**Historical Note**
Former Rule Section B.7. Former Section R12-1-207 repealed, new Section R12-1-207 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-207 renumbered as R12-1-205 and amended effective November 22, 1988 (Supp. 88-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-206. Assembler and/or transfer obligation**

**A.** Any person who sells, leases, transfers, lends, disposes, assembles, or installs radiation machines in this state shall notify the Agency within 15 days of:
1. The name and address of persons who have received these machines;
2. The manufacturer, model, and serial number of each radiation machine transferred; and
3. The date of transfer of each radiation machine.

**B.** In the case of diagnostic X-ray systems which contain certified components, a copy of the assembler's report prepared in compliance with requirements of the Federal Diagnostic X-ray Standard, 21 CFR 1020.30(d), revised as of April 1, 1987, incorporated herein by reference and on file in the Office of the Secretary of State, shall be submitted to the Agency within 15 days following completion of the assembly. Such report shall suffice in lieu of any other report by the assembler.

**C.** No person shall make, sell, lease, transfer, lend, assemble, service, or install radiation machines or the supplies used in connection with such machines unless such supplies and equipment when properly placed in operation and used shall meet the requirements of these rules.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-209 renumbered as Section R12-1-206 and amended effective November 22, 1988 (Supp. 88-4).

**R12-1-207. Out-of-state Radiation Machines**

**A.** When any radiation machine is to be brought into the state, for temporary use, the person proposing to bring such machine into the state shall give written notice to the Agency at least 3 working days before such machine is to be used in the state. The notice shall include the type of radiation machine; the nature, duration, and scope of use; and the exact location where the radiation machine is to be used. If, for a specific case, the 3-working-day period would impose an undue hardship, the person may, upon application to the Agency, obtain permission to proceed sooner.

**B.** In addition, the owner of the radiation machine and the person possessing the machine while in the state shall:
1. Comply with all applicable rules of the Agency, and upon request:
2. Supply the Agency with such other information necessary to insure safe operation while in the state; and
3. Have available at the jobsite while in the state: work authorization from the Agency, machine registration, operating/emergency procedures, utilization log, survey instrument and associated calibration record, and training records for all users.

**C.** No radiation machine shall be operated within the state on a temporary basis in excess of 180 calendar days per year.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-210 renumbered as Section R12-1-207 and amended effective November 22, 1988 (Supp. 88-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-208. Mammographic Certification Requirements**

Facilities required to be certified pursuant to A.R.S. § 30-672(J) shall:
1. Provide with the application evidence that a quality assurance program is established and in use for the items listed in Appendix B of Article 6 in this Chapter,
2. Provide with the application evidence that all physicians reading the mammographic images have the training and experience required in A.R.S. § 32-2842(A), and
3. Require that all physicians reading mammographic images provide evidence that they meet the requirements of A.R.S. § 32-2842(C).

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective November 22, 1988 (Supp. 88-4). New Section adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-209. Licensing Requirements for Nonionizing Radiation Machine Facilities**

**A.** No person shall receive, possess, use, or transfer a nonexempt nonionizing radiation machine except as authorized pursuant to this Article.

**B.** The owner or persons having possession of any nonexempt nonionizing radiation machine shall apply for licensure with the Agency within 90 days following the effective date of this Article. Subsequent applications for license shall be submitted within 30 days after acquisition of a nonexempt nonionizing radiation producing machine. The application shall be on the form as prescribed in Appendix A in Article 2.

**C.** The licensee shall notify the Agency within 30 days of any change to the information contained in the license application.

**D.** In addition to the application form, the applicant shall remit the appropriate license fee, pursuant to R12-1-1303, and such other information as may be required to comply with Article 14.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**Appendix A. Registration and Licensing Forms (Excluding Radioactive Material)**

**ARRA-4**
Rev. 04/11/96

ARIZONA RADIATION REGULATORY AGENCY
APPLICATION FOR REGISTRATION OR LICENSING OR SOURCES OF RADIATION
(Excluding Radioactive Material)
(See Instructions on Attached Sheet)

THIS APPLICATION FOR A REGISTRATION/LICENSE: NEW __ RENEWAL __ AMENDMENT __

**FACILITY INFORMATION**

| 1. BUSINESS NAME OF POSSESSOR (Individual, Partnership, Corporation, etc.); | 2. BUSINESS AREA CODE - TELEPHONE # |
|---|---|

3. BUSINESS MAILING ADDRESS: NO. AND STREET CITY AND STATE ZIP CODE

4. ADDRESS AND TELEPHONE NUMBER AT WHICH SOURCES WILL BE USED, IF DIFFERENT FROM ITEMS 2 AND 3.

5. THIS IS AN APPLICATION FOR (CHOOSE ONE ONLY): SUBMIT A SEPARATE ARRA-4 FORM FOR EACH TYPE OF FACILITY, AS APPLICABLE.

X-RAY FACILITY __ PARTICLE ACCELERATOR FACILITY __ NON-IONIZING RADIATION FACILITY__

6. FACILTY SUBTYPE:

HOSPTIAL __ DENTAL __ PODIATRY __ MAMMOGRAPHY __ CHIROPRACTIC __ MEDICAL CLINIC __
PRIVATE MEDICAL PRACTICE __ EDUCATIONAL __ INDUSTRIAL RADIOGRAPHY__ INDUSTRIAL __ VETERINARIAN__
OTHER __ If Other, explain: _____

7. INDIVIDUAL RESPONSIBLE FOR RADIATION PROTECTION AT THIS FACILITY

NAME TITLE

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4**
Rev. 04/11/96

8. LEGAL STRUCTURE OF APPLICANT

An Individual __ A Partnership __ A Limited Liability Corporation __ A Corporation __

An Unicorporated Association __ City/County/State Government __

A Partnership
Please provide the name and address of each individual or legal entity owning a partnership interest in the applicant.

Please state the percentage ownership of the applicant partnership held by each of the individuals or legal entities listed above.

A Limited Liability Corporation

Memberships Ownerships

A Corporation

STOCK OF APPLICANT CORPORATION

| # AUTHORIZED SHARES | # ISSUED SHARES | # SUBSCRIBED SHARES | TOTAL STOCKHOLDERS | TOTAL SUBSCRIBERS |
|---|---|---|---|---|
| | | | | |

Is the applicant corporation directly or indirectly controlled by another corporation or other legal entity?
If "yes" give name and address of other corporation or legal entity and describe how such control exists and the extent of the control.

For all entities, please identify the State, District, or Territory under the laws of which the applicant is organized. Include the name and address of any Arizona agent for the applicant.

**SEE ATTACHED SHEET FOR LIST OF ATTACHMENTS TO BE INCLUDED WITH THIS APPLICATION**

9. The applicant or any official executing this application on behalf of the applicant certifies that this application has been prepared in accordance with Arizona Administrative Code, Title 12, Chapter 1, and all information contained on this form, including any supplements and attachments, is true and correct to the best of his or her knowledge and belief.

DATE APPLICANT (ITEM 1) BY TITLE

_____ _____ _____ _____

# RETAIN A COPY FOR YOUR RECORDS

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4**
Rev. 04/11/96

## INSTRUCTIONS

Amendments to Form ARRA-4 should be submitted on Form ARRA-4. Changes to the attachments do not require a Form ARRA-4, but only submit the attachment form as applicable.

Items 1-3, are self-explanatory. Be sure to include area code and all ZIP codes.

Item 4, list address(es) at which a source of radiation may be used other than the address listed in item 3. If statewide, county wide, or citywide, please so designate. Leave blank if the same as item 3.

Item 5, please classify the facility according to the usage for which this application is being filed. If more than 1 usage of sources of radiation occurs at this facility a separate application should be filed for each usage. You may make copies of the front of this form, if necessary.

Item 6, choose a facility subtype that best describes your facility.

Item 7, list the name and telephone number of the individual who is delegated responsibility for radiation control for the facility. If a committee has this responsibility, list the chairman and attach a list of the committee membership. In any case, an individual usually designated as the Radiation Safety Officer will have the day to day responsibility for the administration of the Radiation Safety Program of the facility. Changes to the Committee Membership of the Radiation Safety Officer may be sent to the Agency by letter or FAX.

Item 8, please indicate the legal structure of the applicant. **NOTE**: for all cases indicate the State, etc., under which the entity is organized and any Arizona Agent representing the entity.

Item 9, please sign and date the application. Send application to: ARRA; 4814 South 40th Street; Phoenix, AZ 85040.

If you have any questions, please write to the above address or call 602-255-4845 ex. 3 FAX 602-437-0705.

**PLEASE NOTE AN APPLICATION FOR A NEW RADIATION MACHINE FACILITY (NEVER REGISTERED/LICENSED BY THE APPLICANT) CANNOT BE PROCESSED UNTIL THE APPROPRIATE APPLICATION FEE IS RECEIVED. IN ACCORDANCE WITH R12-1-202 (C), THE APPLICANT OF AN EXISTING REGISTERED OR LICENSED FACILITY IS NOT TO POSSESS OR USE UNREGISTERED/UNLICENSED EQUIPMENT FOR MORE THAN 30 DAYS. (NOTE: A SCHEDULE OF APPLICATION FEES CAN BE FOUND IN R12-1-1306.)**

No registration is complete unless the appropriate forms listing the equipment to be registered/licensed accompany this application. The following is a list of the appropriate forms to use when registering equipment.

| TYPE EQUIPMENT | ATTACHMENTS TO ARRA-4 APPLICATION |
|---|---|
| Medical/Dental Diagnostic X-Ray units | ARRA-4X |
| Medical Therapy X-Ray (<1Mev) | ARRA-4XT |
| Medical Therapy X-Ray ( ≥ 1Mev) | ARRA-4PAT |
| Industrial Gauge | ARRA-4IG |
| Industrial Radiography (< 1,000 kVp) | ARRA-4IR |
| Industrial Radiography ( ≥ 1Mev) | ARRA-4PAR |
| All other Particle Accelerators | ARRA-4PA |
| Mammography | ARRA-13 |
| Non-Ionizing Application | ARRA-1004 |
| Tanning | ARRA-1005 |
| Radio Frequency | ARRA-1030 |
| Nonionizing User | ARRA-1050 |
| Laser | ARRA-1070 |
| MRI | ARRA-1090 |

**Historical Note**

Appendix A, Form ARRA-4 adopted effective November 22, 1988 (Supp. 88-4). Appendix A, Form ARRA-4 repealed, new Form ARRA-4 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4X**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR THE REGISTRATION OF MEDICAL/DENTAL OR VETERINARIAN DIAGNOSTIC X-RAY SOURCE OF RADIATION**

| FACILITY NAME | REGISTRATION # (if available)<br>DATE |
|---|---|

**MACHINE INFORMATION**
Diagnostic X-Ray

| | | |
|---|---|---|
| Fluoroscopic w/image Intensifier ____ | | Bone Densitometer ____ |
| Fluoroscopic wo/image Intensifier ____ | Tomographic ____ | Cephalometric ____ |
| Combination w/image Intensifier ____ | Panographic ____ | Intra Oral ____ |
| Combination wo/image Intensifier ____ | Radiographic ____ | Other Dental ____ |
| Computerized Axial Tomographic ____ | Photoflurographic ____ | Other Medical ____ |

This Machine is Mobile ____ Stationary ____ Portable ____ Transportable ___

**EQUIPMENT**

| | MANUFACTURER/MODEL NO. | SERIAL NO. | MAX. KVP | MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|---|
| Control Panel | | | | | |
| Rad. Tube #1 | | | | | |
| Tube #2 | | | | | |
| Tube #3 | | | | | |
| Tube #4 | | | | | |
| Flouro. Tube #1 | | | | | |
| Flouro. Tube #2 | | | | | |

**ADDITIONAL INFORMATION**
(Use additional pages, if necessary)

INSTRUCTIONS

1. Excluding dental and mammography units, please provide a scale drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.A.C. R12-1-408 and R12-1-416. The calculations shall meet the standards specified in R12-1-603(C)(2). For your assistance Regulatory Guide 10.5 is available to guide you in supplying these items.
2. Please provide the specific instructions including any restrictions provided to the equipment operators. Regulatory Guide 10.5 will assist you in completing this portion of the application.
3. Please note that R12-1-604(B) requires each registrant to maintain for each x-ray machine:
   a. Maximum rating of technique factors;
   b. Aluminum equivalent filtration of the useful beam, including routine variations;
   c. Records of surveys, calibrations, maintenance, modifications, and the names of persons who performed the service;
   d. A copy of all correspondence with the Agency relating to the x-ray machine.
4. Please note that R12-1-206(C) requires transferor provide to each registrant, the supplies and x-ray machine necessary to comply with the requirements of the rules relating to the usage of the equipment transferred.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-4X adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4XT**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR MEDICAL THERAPY X-RAY SOURCE OF RADIATION <1 Mev**

| FACILITY NAME | REGISTRATION # (if available)<br><br>DATE |
|---|---|

**MACHINE INFORMATION**
Medical Therapeutic X-Ray

< 150kVp ____ 151 - 999kVp ____

**EQUIPMENT**

| | MANUFACTURER / MODEL NO. | SERIAL NO. | MAX. KVP | MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|---|
| Control Panel | | | | | |
| Therapy Tube #1 | | | | | |
| Therapy Tube #2 | | | | | |
| Therapy Tube #3 | | | | | |

**ADDITIONAL INFORMATION**
(Use additional pages, if necessary)

INSTRUCTIONS

1. Please provide a scale drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.A.C. R12-1-408 and R12-1-416. The calculations shall meet the standards specified in R12-1-603 (C)(2). For your assistance, Regulatory Guide 11.5 is available to guide you in supplying these items. You may wish to submit the consultant design report for the facility instead.

2. Please provide the specific instructions including any restrictions provided to the equipment operators. Regulatory Guide 11.5 will assist you in completing this portion of the application.

3. Please note that R12-1-611(C), (D), and (E) require each registrant to maintain for each x-ray machine:
   a. A record of the radiation protection survey of the facility;
   b. A record of the calibrations of the Unit;
   c. For Units > 150kVp, a record of the monthly spot check must be maintained;

4. Please provide a copy of 3(a) and 3(b) above when they are initially completed for this installation.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-4XT adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4PAT**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR MEDICAL THERAPY PARTICLE ACCELERATOR SOURCE OF RADIATION ≥ 1 Mev**

| FACILITY NAME | REGISTRATION # (if available)<br><br>DATE |
|---|---|

**CLASSIFICATION OF PROFESSIONAL IN CHARGE OF MACHINE**

General Practitioner ____ Health Physicist ____ Registered X-Ray Technologist ____

Radiologist ____ Medical Physicist _____ Osteopath ____ Other ____

**PARTICLE ACCELERATOR INFORMATION**

Betatron____ Cyclotron ____ Van de Graaff ____ Other Medical therapy___ medical LINAC____

**EQUIPMENT**

| | MANUFACTURER / MODEL NO. | SERIAL NO. | MAX. Mev | MU/min or MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|---|
| Photons | | | | | |
| Electrons | | | | | |
| Neutrons | | | | | |

**ADDITIONAL INFORMATION**
(Use additional pages, if necessary)

INSTRUCTIONS

1. Please provide a scale drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.A.C. R12-1-408 and R12-1-416. The calculations shall meet the requirements specified in R12-1-603 (C)(2). For your assistance Regulatory Guide 11.5 is available to guide you in supplying these items. You may wish to submit the consultant design report for the facility instead.
2. Please provide the specific instructions including any restrictions provided to the equipment operators. Regulatory Guide 11.5 will assist you in completing this portion of the application.
3. Please note that R12-1-611 (B) and (C) requires each registrant to maintain for each particle accelerator:
   a. Prior to initiating treatment, a radiation protection survey of the facility is made and the record retained. A copy must be provided to the Agency;
   b. A record of the calibrations of the Unit;
   c. A record of the monthly spot checks must be maintained.
4. Please provide the names of the Radiation Safety Officer and the physician(s) with their qualifications to be listed on the registration as authorized users of the particle accelerator.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-4PAT adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4IG**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR INDUSTRIAL GAUGE OR ANALYTICAL X-RAY SOURCE OF RADIATION**
(does **NOT** include Industrial Radiography)

| FACILITY NAME | REGISTRATION # (if available)<br><br>DATE |
|---|---|

**MACHINE INFORMATION**
X-Ray Unit

Analytical ____ Industrial Gauge ____ This Machine is Mobile ____ or Fixed ____ Other ____

**EQUIPMENT**

| | MANUFACTURER / MODEL NO. | SERIAL NO. | MAX. KVP | MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|---|
| Control Panel | | | | | |
| Rad. Tube #1 | | | | | |
| Rad. Tube #2 | | | | | |
| Rad. Tube #3 | | | | | |

**ADDITIONAL INFORMATION**
(Use additional pages, if necessary)
INSTRUCTIONS

1. Please provide a scale drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.C.C. R12-1-408 and R12-1-416. The calculations should include the information required to assess the compliance with these regulations.

2. Please provide the specific instructions or procedures including any restrictions, such as beam stop usage, provided to the equipment operators.

3. Please note that R12-1-206 (C) requires the transferor provide each registrant with the supplies and x-ray equipment as necessary to comply with the requirements of the rules relating to the use of the equipment transferred.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-4IG adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4IR**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR AN INDUSTRIAL RADIOGRAPHY X-RAY SOURCE OF RADIATION (<1,000 kVp)**

| FACILITY NAME | REGISTRATION # (if available)<br><br>DATE |
|---|---|

**TYPE PROGRAM**

Cabinet ____ Fixed ____ Mobile ____

**MACHINE INFORMATION**

Floroscopic w/image Intensifier ____ Radiographic ____ Other ____

**EQUIPMENT**

| | MANUFACTURER / MODEL NO. | SERIAL NO. | MAX. KVP | MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|---|
| Control Panel | | | | | |
| Rad. Tube #1 | | | | | |
| Rad. Tube #2 | | | | | |
| Rad. Tube #3 | | | | | |

**ADDITIONAL INFORMATION**

(Use additional pages, if necessary)

INSTRUCTIONS

1. Please provide a scale drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.A.C. R12-1-408 and R12-1-416. If for temporary locations, please provide a copy of your operating and emergency procedures which contain the information required by R12-1-522.
2. Please provide the specific instructions including any restrictions provided to the radiographers.
3. Please note that R12-1-534 requires each registrant to maintain for each industrial x-ray radiography site:
   a. A copy of the registration form;
   b. Operating and emergency procedures;
   c. Agency rules;
   d. Survey records as required by R12-1-533 along with dosimetry records; and
   e. The latest instrument calibration which indicates the applicability to the x-ray energies in use at the site.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-4IR adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4PAR**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR AN INDUSTRIAL RADIOGRAPHY X-RAY SOURCE OF RADIATION (≥1 Mev)**

| FACILITY NAME | REGISTRATION # (if available)<br><br>DATE |
|---|---|

**CLASSIFICATION OF PERSONNEL IN CHARGE OF MACHINE**

Health Physicist ____ Radiographer ____ Other ____

**MACHINE INFORMATION**

Betatron____ Cyclotron ____ Van de Graaff ____ Linear ____ Other ____

This Machine is Mobile ____ or Fixed ____

**EQUIPMENT**

| MANUFACTURER / MODEL NO. | SERIAL NO. | MAX. MVP | MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**ADDITIONAL REQUESTED INFORMATION**

(Use additional pages, if necessary)
INSTRUCTIONS

1. Please provide a drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.A.C. R12-1-408 and R12-1-416. If for temporary locations, please provide a copy of your operating and emergency procedures which contain the information required by R12-1-522.
2. Please provide the specific instructions including any restrictions provided to the radiographers.
3. Please note that R12-1-534 requires each registrant to maintain for each industrial x-ray radiography site:
   a. A copy of the registration form;
   b. Operating and emergency procedures;
   c. Agency rules;
   d. Survey records as required by R12-1-533 along with dosimetry records; and
   e. The latest instrument calibration which indicates the applicability to the x-ray energies in use at the site.
4. Please provide the Radiation Safety Officer's name and his/her qualifications.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-PAR adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-4PA**
January 1996

ARIZONA RADIATION REGULATORY AGENCY

**ATTACHMENT TO ARRA-4 FOR A PARTICLE ACCELERATOR SOURCE OF RADIATION (>1 Mev)**

| FACILITY NAME | REGISTRATION # (if available)<br><br>DATE |
|---|---|

**CLASSIFICATION OF PERSONNEL IN CHARGE OF MACHINE**

Health Physicist ____ Operator ____ Other ____

**MACHINE INFORMATION**

Betatron____ Cyclotron ____ Van de Graaff ____ Linear ____ Other ____

This Machine is Mobile ____ or Fixed ____

**EQUIPMENT**

| MANUFACTURER / MODEL NO. | SERIAL NO. | MAX. MVP | MAX. MA. | PHYSICAL LOCATION |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**ADDITIONAL INFORMATION**
(Use additional pages, if necessary)
INSTRUCTIONS

1. Please provide a drawing of the facility, including construction material, and your calculations of the shielding needed to assure compliance with A.A.C. R12-1-408 and R12-1-416. If for temporary locations, please provide a copy of your operating and emergency procedures which contain the information required by R12-1-522.
2. Please provide the specific instructions including any restrictions provided to operators.
3. Please note that R12-1-1002 requires each registrant to maintain for each Particle Accelerator site:
   a. A copy of the registration form;
   b. Operating and emergency procedures;
   c. Agency rules.

# RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-4PA adopted effective April 17, 1996 (Supp. 96-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-13**
Rev. Nov. 1993

**ARIZONA RADIATION REGULATORY AGENCY**

# APPLICATION FOR MAMMOGRAPHY FACILITY CERTIFICATION

INSTRUCTIONS - Complete all items in this application for Certification of Mammography Facility or for renewal of a Certification. Use supplemental sheet where necessary. Item 11 must be complete on all applications. Prepare two copies of this application and all associated supplements or attachments. Mail original to Arizona Radiation Regulatory Agency; 4814 South 40th Street; Phoenix, AZ 85040. Upon approval of this application the applicant will receive a Certificate issued in accordance with A.R.S. § 32-2843 and 30-672.J.

<table>
<tr><td colspan="2">1A. Name and address of applicant, include ZIP Code.</td><td colspan="2">1B. Street address for Mammography Operations, if different from 1A.</td></tr>
<tr><td colspan="2">2. Person to contact regarding this application.</td><td colspan="2">Telephone No.</td></tr>
<tr><td colspan="4">3. Application for: [ ] New Certification [ ] Renewal Certification [ ] Screening Mammography [ ] Non-Screening Mammography</td></tr>
<tr><td colspan="2">4A. Radiation Safety Officer (RSO).</td><td colspan="2">4B. Radiation Physicist, Training, and Duties.</td></tr>
<tr><td>5. Control Manufacturer.</td><td>6. Control Model #.</td><td>7A. Control Serial #.</td><td>7B. Tube Manuf. and Model #.</td></tr>
<tr><td colspan="2">8. Address of Darkroom. (If not on site, ref §32-2843 A.R.S.)</td><td colspan="2">9. For Screening Mammography, attach a copy of:<br>a. The physician approved guide for accepting patients.<br>b. The facility’s quality assurance program.<br>c. The Medical Physicist Evaluation of the Facility.</td></tr>
<tr><td colspan="4">10. Physicians to read or interpret mammography images, enclose certification from the Arizona Board of Medical or Osteopathic Examiners.</td></tr>
</table>

11. The applicant or any official executing this application on behalf of the applicant certifies that this application has been prepared in accordance with Arizona Administrative Code, Title 12, Chapter 1, and all information contained on the form, including any supplements and attachments, is true and correct to the best of his or her knowledge and belief.

_____ By:_____
(Type or print name of Certifying Official) (Signature)

_____ Date:_____
(Title of Certifying Official)

## RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-13 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-1004**
May 1994

**ARIZONA RADIATION REGULATORY AGENCY**

# NONIONIZING RADIATION LICENSE APPLICATION

INSTRUCTIONS - Complete all items in this application for a new license or the renewal of an existing license. Use the provided data forms and supplemental sheets where necessary. Retain a copy of this application for your records. Mail the original to: Arizona Radiation Regulatory Agency, 4814 South 40th Street, Phoenix, Arizona 85040. Upon approval of this application, the applicant will receive a Nonionizing Radiation License issued in accordance with the requirements contained in the Arizona Administrative Code.

| 1. NAME AND ADDRESS OF LICENSEE:<br><br>TELEPHONE NUMBER: | 2. ADDRESS AT WHICH DEVICE(S) WILL BE USED: |
|---|---|
| 3. PERSON TO CONTACT REGARDING THIS APPLICATION<br><br>TELEPHONE NUMBER: | 4. THIS IS AN APPLICATION FOR: (Check appropriate item)<br>❑ NEW LICENSE<br>❑ RENEWAL OF LICENSE NO. _____<br>❑ AMEMDMENT TO LICENSE NO. _____ |

5. THIS APPLICATION IS FOR: (Check appropriate item)

| | | |
|---|---|---|
| [ ] TANNING FACILITY | number of devices _____ | Attach Tanning Data Forms and Nonionizing Radiation User Applications |
| [ ] INDUSTRIAL LASER FACILITY | number of devices _____ | Attach Laser Facility Data Forms and Nonionizing Radiation User Applications |
| [ ] MEDICAL LASER FACILITY | number of devices _____ | Attach Laser Facility Data Forms and Nonionizing Radiation User Applications |
| [ ] LASER LIGHT SHOW | variance number _____ | Attach Variance and Nonionizing Radiation User Applications |
| [ ] MEDICAL RF DEVICE FACILITY | number of devices _____ | Attach RF Data Forms and Nonionizing Radiation User Applications |
| [ ] MEDICAL IMAGING FACILITY | number of devices _____ | Attach Imaging Data Forms and Nonionizing Radiation User Applications |
| [ ] INDUSTRIAL RF FACILITY | number of devices _____ | Attach RF Data Forms and Nonionizing Radiation User Applications |
| [ ] OTHER RADIATION MACHINES | Contact the Agency | |

The Applicant or any official executing this certificate on behalf of the applicant named in item 1, certifies that this application is prepared in conformity with Arizona Administrative Code, Title 12, Chapter 1, and that all information contained on the form, including any attachments, is true and correct to the best of his or her knowledge and belief. Further, the Applicant or any official executing this certificate on behalf of the applicant agrees to conform to the Statutory and Administrative requirements of the State of Arizona and the Arizona Radiation Regulatory Agency.

_____ BY:_____
(TYPE OR PRINT NAME OF CERTIFYING OFFICIAL) (SIGNATURE)

_____ DATE:_____
(TITLE OF CERTIFYING OFFICIAL)

## RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-1004 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-1005**
May 1994

**ARIZONA RADIATION REGULATORY AGENCY**

# TANNING DATA FORM

INSTRUCTIONS - Complete all items in this data sheet for licensing a new facility or the renewal or amendment of an existing license. Use one data form for each Tanning Device. Retain a copy of this data sheet for your records. Attach this data sheet to your NONIONIZING RADIATION LICENSE APPLICATION and mail to: Arizona Radiation Regulatory Agency, 4814 South 40th Street, Phoenix, Arizona 85040. Upon approval of this application, the applicant will receive a Nonionizing Radiation License issued in accordance with the requirements contained in the Arizona Administrative Code. This data form is for use by Tanning device facilities. Other facility types are required to use forms provided by the Agency.

| | |
|---|---|
| 1. NAME AND ADDRESS OF LICENSEE:<br><br>TELEPHONE NUMBER: | 2. ADDRESS AT WHICH DEVICE(S) WILL BE USED: |
| 3. PERSON TO CONTACT REGARDING THIS DATA FORM<br><br>TELEPHONE NUMBER: | 4. THIS IS AN APPLICATION FOR: (Check appropriate item)<br>❑ NEW LICENSE<br>❑ RENEWAL OF LICENSE NO. _____<br>❑ AMEMDMENT TO LICENSE NO. _____ |
| 5. TANNING DEVICE IDENTIFYING INFORMATION:<br><br>MANUFACTURER: _____<br>MODEL NUMBER: _____<br>DATE OF MANUFACTURE: _____<br>TYPE OF LAMPS USED: ❑ UVA ❑ UVB ❑ UVA/UVB | 6. TIMER TYPE AND INDENTIFYING INFORMATION:<br>❑ ORIGINAL CERTIFIED TIMER<br>❑ AFTERMARKET ELECTRONIC<br>❑ AFTERMARKET MECHANICAL<br>MAXIMUM TANNING TIME SETTING: _____<br>USER ABLE TO TERMINATE EXPOSURE LOCALLY: ❑ YES ❑ NO |

The Applicant or any official executing this certificate on behalf of the applicant named in item 1, certifies that this application is prepared in conformity with Arizona Administrative Code, Title 12, Chapter 1, and that all information contained on the form, including any attachments, is true and correct to the best of his or her knowledge and belief. Further, the Applicant or any official executing this certificate on behalf of the applicant agrees to conform to the Statutory and Administrative requirements of the State of Arizona and the Arizona Radiation Regulatory Agency.

_____ BY:_____
(TYPE OR PRINT NAME OF CERTIFYING OFFICIAL) (SIGNATURE)

_____ DATE:_____
(TITLE OF CERTIFYING OFFICIAL)

RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-1005 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-1030**
May 1994

**ARIZONA RADIATION REGULATORY AGENCY**

# RF DATA FORM

INSTRUCTIONS - Complete all items in this data sheet for licensing a new facility or the renewal of an existing license. Use one data form for each RF Device. Retain a copy of this data sheet for your records. Attach this data sheet to your NONIONIZING RADIATION LICENSE APPLICATION and mail to: Arizona Radiation Regulatory Agency, 4814 South 40th Street, Phoenix, Arizona 85040. Upon approval of this application, the applicant will receive a Nonionizing Radiation License issued in accordance with the requirements contained in the Arizona Administrative Code. This data form is for use by RF device facilities. Other facility types are required to use forms provided by the Agency.

| | |
|---|---|
| 1. NAME AND ADDRESS OF LICENSEE:<br><br>TELEPHONE NUMBER: | 2. ADDRESS AT WHICH DEVICE(S) WILL BE USED: |
| 3. PERSON TO CONTACT REGARDING THIS DATA FORM<br><br>TELEPHONE NUMBER: | 4. THIS IS DATA FOR AN APPLICATION FOR: (Check appropriate item)<br>❑ NEW LICENSE<br>❑ RENEWAL OF LICENSE NO. _____<br>❑ AMEMDMENT TO LICENSE NO. _____ |
| 5. RF DEVICE INDENTIFYING INFORMATION:<br><br>MANUFACTURER: _____<br>MODEL NUMBER:_____<br>SERIAL NUMBER: _____ | 6. RF DEVICE STRENGTH AND TYPE:<br><br>DEVICE OUTPUT POWER:_____<br>DUTY CYCLE:_____<br>PRINCIPAL FREQUENCY:_____ |

The Applicant or any official executing this certificate on behalf of the applicant named in item 1, certifies that this application is prepared in conformity with Arizona Administrative Code, Title 12, Chapter 1, and that all information contained on the form, including any attachments, is true and correct to the best of his or her knowledge and belief. Further, the Applicant or any official executing this certificate on behalf of the applicant agrees to conform to the Statutory and Administrative requirements of the State of Arizona and the Arizona Radiation Regulatory Agency.

_____ BY_____
(TYPE OR PRINT NAME OF CERTIFYING OFFICIAL) (SIGNATURE)

_____ DATE_____
(TITLE OF CERTIFYING OFFICIAL)

RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-1030 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-1050**
May 1994

**ARIZONA RADIATION REGULATORY AGENCY**

# NONIONIZING RADIATION USER APPLICATION

INSTRUCTIONS - Complete one of these applications, to be included with a NONIONIZING RADIATION LICENSE APPLICATION, for each user to be authorized use on a new license or the renewal of an existing license. Use supplemental sheets where necessary. Retain a copy of this application for your records. Mail the original to: Arizona Radiation Regulatory Agency, 4814 South 40th Street, Phoenix, Arizona 85040.

| 1. NAME AND ADDRESS OF LICENSEE<br><br>TELEPHONE NUMBER: | 2. ADDRESS AT WHICH DEVICE(S) WILL BE USED |
|---|---|
| 3. PERSON TO CONTACT REGARDING THIS APPLICATION<br><br>TELEPHONE NUMBER: | 4. THIS APPLICATION IS PART OF A(N): (Check appropriate item)<br>❑ NEW LICENSE<br>❑ RENEWAL OF LICENSE NO. _____<br>❑ AMEMDMENT TO LICENSE NO. _____ |

The operator has been trained and demonstrated competence in the safe use of this equipment.
A copy of safety rules has been provided to the operator.

The operator has been made aware of any restrictions in operating techniques required for the safe use of the devices.

A copy of the Arizona Administrative Code, Title 12, Chapter 1 is available for review by the operator, and the requirements of the applicable portions of the same have been reviewed with the operator.

Job Title of Operator: _____ Job Title of Supervisor of Operator: _____

Name of Operator: _____ Name of Safety Officer: _____

The Use Applicant or the Official executing this certificate on behalf of the License Applicant named in item 1, certifies that this application is prepared in conformity with Arizona Administrative Code, Title 12, Chapter 1, and that all information contained on the form, including any attachments, is true and correct to the best of his or her knowledge and belief. Further, the User Applicant or any official executing this certificate on behalf of the applicant agrees to conform to the Statutory and Administrative requirements of the State of Arizona and the Arizona Radiation Regulatory Agency.

_____ BY:_____
(TYPE OR PRINT NAME OF OPERATOR) (SIGNATURE OF OPERATOR)

_____ DATE:_____
(TITLE OF OPERATOR)

_____ BY:_____
(TYPE OR PRINT NAME OF CERTIFYING OFFICIAL) (SIGNATURE OF CERTIFYING OFFICIAL)

_____ DATE:_____
(TITLE OF CERTIFYING OFFICIAL)

## RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-1050 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-1070**
May 1994

**ARIZONA RADIATION REGULATORY AGENCY**

# LASER DATA FORM

INSTRUCTIONS - Complete all items in this data sheet for licensing a new facility or the renewal or amendment of an existing license. Use one data form for each regulated LASER. Retain a copy of this data sheet for your records. Attach this sheet to your NONIONIZING RADIATION LICENSE APPLICATION and mail to: Arizona Radiation Regulatory Agency, 4814 South 40th Street, Phoenix, Arizona 85040. Upon approval of this application, the applicant will receive a Nonionizing Radiation License issued in accordance with the requirements contained in the Arizona Administrative Code. This data form is for use by Laser facilities. Other facility types are required to use forms provided by the Agency.

| | |
|---|---|
| 1. NAME AND ADDRESS OF LICENSEE:<br><br>TELEPHONE NUMBER: | 2. ADDRESS AT WHICH DEVICE(S) WILL BE USED: |
| 3. PERSON TO CONTACT REGARDING THIS DATA FORM<br><br>TELEPHONE NUMBER: | 4. THIS IS DATA FOR AN APPLICATION FOR: (Check appropriate item)<br>❑ NEW LICENSE<br>❑ RENEWAL OF LICENSE NO. _____<br>❑ AMEMDMENT TO LICENSE NO. _____ |
| 5. LASER INDENTIFYING INFORMATION:<br><br>MANUFACTURER: _____<br>MODEL NUMBER: _____<br>SERIAL NUMBER: _____ | 6. LASER CLASS AND TYPE:<br><br>LASER CLASS: _____<br>LASING MEDIUM (i.e., CO2 or YAG):_____<br>PRINCIPAL WAVELENGTH: _____ |

The Applicant or any official executing this certificate on behalf of the applicant named in item 1, certifies that this application is prepared in conformity with Arizona Administrative Code, Title 12, Chapter 1, and that all information contained on the form, including any attachments, is true and correct to the best of his or her knowledge and belief. Further, the Applicant and any official executing this certificate on behalf of the applicants behalf agrees to conform to the Statutory and Administrative requirements of the State of Arizona and the Arizona Radiation Regulatory Agency.

_____
(TYPE OR PRINT NAME OF CERTIFYING OFFICIAL)

BY_____
(SIGNATURE)

_____
(TITLE OF CERTIFYING OFFICIAL)

DATE:_____

## RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form ARRA-1070 adopted effective April 17, 1996 (Supp. 96-2).

**Appendix A. Registration and Licensing Forms *Continued***

**ARRA-1090**
May 1994

**ARIZONA RADIATION REGULATORY AGENCY**

# IMAGING DATA FORM

INSTRUCTIONS - Complete all items in this data sheet for licensing a new facility or the renewal or amendment of an existing license. Use one data form for each Imaging Device. Retain a copy of this data sheet for your records. Attach this data sheet to your NONIONIZING RADIATION LICENSE APPLICATION and mail to: Arizona Radiation Regulatory Agency, 4814 South 40th Street, Phoenix, Arizona 85040. Upon approval of this application, the applicant will receive a Nonionizing Radiation License issued in accordance with the requirements contained in the Arizona Administrative Code. This data form is for use by Imaging device facilities. Other facility types are required to use forms provided by the Agency.

| | |
|---|---|
| 1. NAME AND ADDRESS OF LICENSEE:<br><br>TELEPHONE NUMBER: | 2. ADDRESS AT WHICH DEVICE(S) WILL BE USED: |
| 3. PERSON TO CONTACT REGARDING THIS DATA FORM<br><br>TELEPHONE NUMBER: | 4. THIS IS DATA FOR AN APPLICATION FOR: (Check appropriate item)<br>❑ NEW LICENSE<br>❑ RENEWAL OF LICENSE NO. _____<br>❑ AMEMDMENT TO LICENSE NO. _____ |
| 5. IMAGE DEVICE INDENTIFYING INFORMATION:<br><br>MANUFACTURER: _____<br>MODEL NUMBER: _____<br>SERIAL NUMBER: _____ | 6. IMAGING DEVICE STRENGTH AND TYPE<br><br>DEVICE FIELD STRENGTH: _____<br>DEVICE CYCLE TIME: _____<br>PRINCIPAL FREQUENCY: _____ |

The Applicant or any official executing this certificate on behalf of the applicant named in item 1, certifies that this application is prepared in conformity with Arizona Administrative Code, Title 12, Chapter 1, and that all information contained on the form, including any attachments, is true and correct to the best of his or her knowledge and belief. Further, the Applicant or any official executing this certificate on behalf of the applicants behalf agrees to conform to the Statutory and Administrative requirements of the State of Arizona and the Arizona Radiation Regulatory Agency.

_____ BY_____
(TYPE OR PRINT NAME OF CERTIFYING OFFICIAL) (SIGNATURE)

_____ DATE:_____
(TITLE OF CERTIFYING OFFICIAL)

## RETAIN A COPY FOR YOUR RECORDS

**Historical Note**

Form 1090 adopted effective April 17, 1996 (Supp. 96-2).

## ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

### R12-1-301. Ownership, Control, or Transfer of Radioactive Material

**A.** In addition to the requirements of this Article, all licensees are subject to the requirements of 12 A.A.C.1, Article 1, Article 4 and Article 10. Licensees engaged in industrial radiographic operations are subject to the requirements of 12 A.A.C. 1, Article 5; licensees using radioactive material in the healing arts are subject to the requirements of 12 A.A.C. 1, Article 7; licensees transporting radioactive material are subject to the requirements contained in 12 A.A.C. 1, Article 15.

**B.** Notwithstanding any other provisions of this Article, any person may own radioactive material, provided that the ownership does not include the actual possession, custody, use or physical transfer of radioactive material or the manufacture or production of any article containing radioactive material without the applicable certification, license or registration.

**C.** A manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source material or byproduct material whose subsequent possession, use, transfer, or disposal by all other persons is exempt from regulatory requirements may only obtain authority to transfer possession or control of the material from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

**Historical Note**

Former Rule Section C.1. Former Section R12-1-301 repealed, new Section R12-1-301 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-301 renumbered to R12-1-322, new Section R12-1-301 adopted effective February 18, 1994 (Supp. 94-1). Former Section R12-1-301 repealed; new Section R12-1-301 renumbered from R12-1-302 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

### R12-1-302. Source Material; Exemptions

**A.** Any person is exempt from this Article to the extent the person receives, possesses, uses, or transfers source material in any chemical mixture, compound, solution, or alloy in which the source material is by weight less than 1/20th of 1 percent (0.05 percent) of the mixture, compound, solution, or alloy.

**B.** Any person is exempt from this Article to the extent the person receives, possesses, uses, or transfers unrefined and unprocessed ore containing source material, provided that, the person does not refine or process the ore except as authorized in a specific license.

**C.** Any person is exempt from this Article if the person receives, possesses, uses, or transfers:

1. Any quantities of thorium contained in:
   a. Incandescent gas mantles;
   b. Vacuum tubes;
   c. Welding rods;
   d. Electric lamps for illuminating purposes provided that each lamp does not contain more than 50 milligrams of thorium;
   e. Germicidal lamps, sunlamps, and lamps for outdoor or industrial lighting, provided that each lamp does not contain more than 2 grams of thorium;
   f. Rare earth metals, compounds, mixtures, or products containing not more than 0.25 percent by weight thorium, uranium, or any combination of thorium and uranium; or
   g. Individual neutron dosimeters, provided that each dosimeter does not contain more than 50 milligrams of thorium;
2. Source material contained in the following products:
   a. Glazed ceramic tableware, provided that the glaze contains not more than 20 percent source material by weight;
   b. Glassware, glass enamel and glass enamel frit containing not more than 10 percent source material by weight, but not including commercially manufactured glass brick, pane glass, ceramic tile or other glass, glass enamel or ceramic used in construction; or
   c. Piezoelectric ceramic containing not more than 2 percent source material by weight;
3. Photographic film, negatives, and prints containing uranium or thorium;
4. Any finished product or part fabricated of, or containing, tungsten-thorium or magnesium-thorium alloys, provided that the thorium content of the alloy does not exceed 4 percent by weight and that the exemption contained in this subsection does not authorize the chemical, physical, or metallurgical treatment or processing of the finished product or part;
5. Uranium contained in counterweights installed in aircraft, rockets, projectiles, and missiles, or stored or handled in connection with installation or removal of counterweights, provided that:
   a. The counterweights are manufactured in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, authorizing distribution by the licensee according to 10 CFR 40;
   b. Each counterweight has been impressed with the following legend clearly legible through any plating or other covering: "DEPLETED URANIUM";
   c. Each counterweight is durably and legibly labeled or marked with the identification of the manufacturer and the statement: "UNAUTHORIZED ALTERATIONS PROHIBITED";
   d. The exemption contained in this item does not authorize the chemical, physical, or metallurgical treatment or processing of any counterweights other than repair or restoration of any plating or other covering; and
   e. The requirements specified in subsections (C)(5)(b) and (c) do not apply to counterweights manufactured prior to December 31, 1969; provided, that these counterweights are impressed with the legend, "CAUTION -- RADIOACTIVE MATERIAL -- URANIUM".
6. Natural or depleted uranium metal used as shielding and constituting part of any shipping container; provided that:
   a. The shipping container is conspicuously and legibly impressed with the legend "CAUTION -- RADIOACTIVE SHIELDING -- URANIUM", and
   b. The uranium metal is encased in mild steel or equally fire resistant metal with minimum wall thickness of 1/8 inch (3.2 mm).
7. Thorium contained in finished optical lenses, provided that each lens does not contain more than 30 percent of thorium by weight, and that the exemption contained in this item does not authorize either
   a. The shaping, grinding, or polishing of a thoriated lens or manufacturing processes other than the assembly of a thoriated lens into optical systems and devices without any alteration of the lens, or
   b. The receipt, possession, use, or transfer of thorium contained in contact lenses, spectacles, or the eyepieces of binoculars or other optical instruments;

8. Uranium contained in detector heads of fire detection units, provided that each detector head contains not more than 5 nanocuries (185 Bq) of uranium; or
9. Thorium contained in any finished aircraft engine part containing nickel-thoria alloy, provided that:
   a. The thorium is dispersed in the nickel-thoria alloy in the form of finely divided thoria (thorium dioxide), and
   b. The thorium content in the nickel-thoria alloy does not exceed 4 percent by weight.

**D.** The exemptions in subsection (C) do not authorize the manufacture of any of the products described.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended subsection (C) effective November 22, 1988 (Supp. 88-4). Former Section R12-1-302 renumbered to R12-1-303, new Section R12-1-302 renumbered from R12-1-301 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-302 renumbered to R12-1-301; new Section R12-1-302 renumbered from R12-1-303 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-303. Radioactive Material Other than Source Material; Exemptions**

**A.** Exempt concentrations
1. Except as provided in subsection (A)(2), a person is exempt from this Article if the person receives, possesses, uses, transfers or acquires products or materials containing radioactive material in concentrations not in excess of those listed in Exhibit A.
2. A person shall not introduce radioactive material into a product or material knowing or having reason to believe that it will be transferred to persons exempt under subsection (A)(1) or equivalent Regulations of the U.S. Nuclear Regulatory Commission or any Agreement State or Licensing State, except in accordance with a specific license issued under R12-1-311(A) or a general license prescribed in R12-1-320.

**B.** Exempt items
1. Except for persons who apply radioactive material to, or persons who incorporate radioactive material into the following products, a person is exempt from this Chapter to the extent that the person receives, possesses, uses, transfers or acquires the following products:
   a. Timepieces, hands, or dials containing not more than the following specified quantities of material and not exceeding the following specified levels of radiation:
      i. 925 MBq (25 millicuries) of tritium per timepiece,
      ii. 185 MBq (5 millicuries) of tritium per hand,
      iii. 555 MBq (15 millicuries) of tritium per dial (bezels are considered part of the dial),
      iv. 3.7 MBq (100 microcuries) of promethium-147 per watch or 7.4 MBq (200 microcuries) of promethium-147 per any other timepiece,
      v. 740 kBq (20 microcuries) of promethium-147 per watch hand or 1.48 MBq (40 microcuries) of promethium-147 per other timepiece hand,
      vi. 2.22.MBq (60 microcuries) of promethium-147 per watch dial or 4.44 MBq (120 microcuries) of promethium-147 per other timepiece dial (bezels are considered part of the dial),
      vii. The levels of radiation from hands and dials containing promethium-147 shall not exceed, when measured through 50 milligrams per square centimeter of absorber:
      (1) For wrist watches, 1.0 µGy (0.1 millirad) per hour at 10 centimeters from any surface of the watch,
      (2) For pocket watches, (0.1 millirad) per hour at 1 centimeter from any surface,
      (3) For any other timepiece, 2.0 µGy (0.2 millirad) per hour at 10 centimeters from any surface,
      viii. 37 kBq (1 microcurie) of radium-226 in time pieces manufactured prior to October 1, 1978;
   b. Lock illuminators containing not more than 555 MBq (15 millicuries) of tritium or not more than 74 MBq (2 millicuries) of promethium-147 installed in automobile locks. The levels of radiation from each lock illuminator containing promethium-147 shall not exceed 10 µGy (1 millirad) per hour at 1 centimeter from any surface when measured through 50 milligrams per square centimeter of absorber;
   c. Balances of precision containing not more than 37 Mbq (1 millicurie) of tritium per balance or not more than 18.5 MBq (0.5 millicurie) of tritium per balance part;
   d. Automobile shift quadrants containing not more than 925 MBq (25 millicuries) of tritium;
   e. Marine compasses containing not more than 27.75 GBq (750 millicuries) of tritium gas and other marine navigational instruments containing not more than 9.25 GBq (250 millicuries) of tritium gas;
   f. Thermostat dials and pointers containing not more than 925 MBq (25 millicuries) of tritium per thermostat;
   g. Electron tubes: Provided that each tube does not contain more than 1 of the following specified quantities of radioactive material:
      i. 5.55 GBq (150 millicuries) of tritium per microwave receiver protector tube or 370 MBq (10 millicuries) of tritium per any other electron tube;
      ii. 37 kBq (1 microcurie) of cobalt 60;
      iii. 185 kBq (5 microcuries) of nickel 63;
      iv. 1.11 MBq (30 microcuries) of krypton 85;
      v. 185 kBq (5 microcuries) of cesium 137;
      vi. 1.11 MBq (30 microcuries) of promethium-147;
      And provided further, that the level of radiation due to radioactive material contained in each electron tube does not exceed 10 µGy (1 millirad) per hour) at 1 centimeter from any surface when measured through 7 milligrams per square centimeter of absorber. The term "electron tubes" includes spark gap tubes, power tubes, gas tubes, including glow lamps, receiving tubes, microwave tubes, indicator tubes, pick-up tubes, radiation detection tubes, and any other completely sealed tube that is designed to conduct or control electrical current.
   h. Ionizing radiation measuring instruments containing, for purposes of internal calibration or standardization, 1 or more sources of radioactive material provided that:

i. Each source contains no more than 1 exempt quantity set forth in Exhibit B of this Article, and
ii. Each instrument contains no more than 10 exempt quantities. For the purposes of this Paragraph, an instrument's source or sources may contain either 1 type or different types of radionuclide and an individual exempt quantity may be composed of fractional parts of 1 or more of the exempt quantities in Exhibit B of this Article, provided the sum of the fractions do not exceed unity.
iii. For the purposes of subsection (B)(1)(h) only, 185 kBq (50 nanocurie) of americium-241 is considered an exempt quantity under Exhibit B of this Article.
iv. Spark gap irradiators containing not more than 37 kBq (1 microcurie) of cobalt-60 per spark gap irradiator for use in electrically ignited fuel oil burners having a firing rate of at least 3 gallons per hour (11.4 liters/hr or 0.0114 $m^3$/hr).

2. Resins containing scandium-46 and designed for sand consolidation in oil wells. A person is exempt from this Chapter if the person receives, possesses, uses, transfers, or acquires synthetic plastic resins containing scandium 46 which are designed for sand consolidation in oil wells. The described resins shall be manufactured or imported according to a specific license issued by the U.S. Nuclear Regulatory Commission, or shall be manufactured according to the specifications contained in a specific license issued by the Agency or any Agreement State to the manufacturer of the described resins according to licensing requirements equivalent to those in 10 CFR 32.16 and 10 CFR 32.17 of the U.S. Nuclear Regulatory Commission. This exemption does not authorize the manufacture of any resins containing scandium-46.
3. Self-luminous products
   a. Except for persons who manufacture, process, or produce self-luminous products containing tritium, krypton-85, or promethium-147, a person is exempt from this Chapter if the person receives, possesses, uses, transfers or acquires tritium, krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced, imported, or transferred under a specific license issued by the U.S. Nuclear Regulatory Commission and described in 10 CFR 32.22, and the license authorizes the transfer of the products to persons who are exempt from regulatory requirements. This exemption does not apply to tritium, krypton-85, or promethium-147 used in products for frivolous purposes or in toys or adornments.
   b. A person is exempt from this Chapter if the person receives, possesses, uses, or transfers articles containing less than 3.7 kBq (100 nanocuries) of radium-226, manufactured prior to October 1, 1978.
4. Gas and aerosol detectors containing radioactive material
   a. Except for persons who manufacture, process, or produce gas and aerosol detectors containing radioactive material, a person is exempt from this Chapter if the person receives, possesses, uses, transfers, or acquires radioactive material in gas and aerosol detectors designed to protect life or property from fires and airborne hazards, provided that detectors containing radioactive material shall be manufactured, imported, or transferred according to a specific license issued by the U.S. Nuclear Regulatory Commission and described in 10 CFR 32.26, or equivalent regulations of an Agreement or Licensing State, and the license authorizes the transfer of the detectors to persons who are exempt from regulatory requirements.
   b. Gas and aerosol detectors previously manufactured and distributed to general licensees in accordance with a specific license issued by an Agreement State are exempt under subsection (B)(4)(a), provided that the device is labeled in accordance with the specific license authorizing distribution of the general licensed device, and that the detectors meet the requirements of R12-1-311(C).

**C.** Exempt quantities
1. Except as provided in subsections (C)(2) and (3), a person is exempt from these rules if the person receives, possesses, uses, transfers or acquires radioactive material in individual quantities each of which does not exceed the applicable quantity set forth in Exhibit B of this Article.
2. This subsection does not authorize the production, packaging, or repackaging of radioactive material for purposes of commercial distribution, or the incorporation of radioactive material into products intended for commercial distribution.
3. Except as specified in this subsection, a person shall not, for purposes of commercial distribution, transfer radioactive material in the individual quantities set forth in Exhibit B of this Article, knowing or having reason to believe the described quantities of radioactive material will be transferred to persons exempt under subsection (C) or equivalent Regulations of the U.S. Nuclear Regulatory Commission or any Agreement State or Licensing State. A person may transfer radioactive material for commercial distribution under a specific license issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.18, or by the Agency according to R12-1-311(B) which license states that the radioactive material may be transferred by the licensee to persons exempt under this subsection or the equivalent Regulations of the U.S. Nuclear Regulatory Commission or any Agreement State or Licensing State.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-303 renumbered to R12-1-304, new Section R12-1-303 renumbered from R12-1-302 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-303 renumbered to R12-1-302; new Section R12-1-303 renumbered from R12-1-304 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-304. License Types**

Licenses for radioactive materials are of 2 types: general and specific.

1. For a general license, no application is required and no licensing document is issued. The Agency may require that a person file a certificate for a particular general license. The licensee is subject to all other applicable portions of this Chapter and any limitations of the general license.
2. For a specific license, a person submits an application to the Agency. The Agency issues a license if the person satisfies all of the requirements for a license. The licensee

is subject to all applicable portions of this Chapter and any limitations contained in the licensing document.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-304 renumbered to R12-1-305, new Section R12-1-304 renumbered from R12-1-303 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-304 renumbered to R12-1-303; new Section R12-1-304 renumbered from R12-1-305 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-305. General License - Source Material**

**A.** This subsection establishes a general license authorizing use and transfer of not more than 6.8 kg (15 pounds) of source material at any 1 time, for research, development, educational, commercial, or operational purposes, by persons in the following categories: commercial and industrial firms, research, educational and medical institutions, and State and local government agencies; provided that the person proceeding under this general license, receives no more than 68.2 kg (150 pounds) of source material in any 1 calendar year.

**B.** Persons who receive, possess, use, or transfer source material under the general license issued in subsection (A) are exempt from the provisions of 12 A.A.C. 1, Article 4 and Article 10, provided the receipt, possession, use, or transfer is within the terms of the general license; however, this exemption does not apply to any person who is also in possession of source material under a specific license issued under this Article.

**C.** Depleted uranium in industrial products and devices.

1. This subsection establishes a general license to receive, acquire, possess, use or transfer depleted uranium contained in industrial products or devices for the purpose of providing a concentrated mass in a small volume of the product or device.
2. The general license in subsection (C)(1) applies only to industrial products or devices which have been manufactured under a specific license governed by R12-1-311(M), or a specific license issued by the U.S. Nuclear Regulatory Commission or an Agreement State authorizing manufacture of the products or devices for distribution to persons generally licensed by the U.S. Nuclear Regulatory Commission or an Agreement State.
3. Depleted uranium
   a. Persons who receive, acquire, possess, or use depleted uranium under the general license established by subsection (C)(1) shall file ARRA 23 "Registration Certificate -- Use of Depleted Uranium Under General License", with the Agency. The form, requesting the information in Exhibit E, shall be submitted within 30 days after the 1st receipt or acquisition of the depleted uranium. The general licensee shall furnish on ARRA 23 the following information.
      i. Name, telephone number, and address of the general licensee;
      ii. Location of use;
      iii. A statement that the general licensee has developed and will maintain procedures designed to establish physical control over the depleted uranium described in subsection (C)(1) and to prevent transfer of the depleted uranium in any form, including metal scrap, to persons not authorized to receive the depleted uranium; and
      iv. Name or title (or both), address, and telephone number of the individual duly authorized to act for and on behalf of the registrant in supervising the procedures identified in subsection (C)(3)(a)(ii).
   b. The general licensee possessing or using depleted uranium under the general license established by subsection (C)(1) shall report in writing to the Agency any changes in information originally furnished on ARRA 23. The report shall be submitted within 30 days after the effective date of the described change.
4. A person who receives, acquires, possesses, or uses depleted uranium under the general license established by subsection (C)(1):
   a. Shall not introduce depleted uranium, in any form, into a chemical, physical, or metallurgical treatment or process, except a treatment or process for repair or restoration of any plating or other covering of the depleted uranium;
   b. Shall not abandon the depleted uranium;
   c. Shall transfer the depleted uranium as prescribed in R12-1-318. If the transferee receives the depleted uranium under the general license established by subsection (C)(1), the transferor shall furnish the transferee with a copy of this rule and a copy of the registration certificate. If the transferee receives the depleted uranium under a general license governed by a regulation of the U.S. Nuclear Regulatory Commission or Agreement State that is equivalent to subsection (C)(1), the transferor shall furnish the transferee a copy of this rule and a copy of the registration certificate, accompanied by a letter explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or Agreement State under requirements substantially similar to those in this rule;
   d. Within 30 days of any transfer, shall report in writing to the Agency the name and address of the person receiving the depleted uranium; and
   e. Shall not export the depleted uranium except under a license issued by the U.S. Nuclear Regulatory Commission in 10 CFR 110.
5. Any person receiving, acquiring, possessing, using, or transferring depleted uranium according to the general license established by subsection (C)(1) is exempt from the requirements of 12 A.A.C. 1, Articles 4 and 10 with respect to the depleted uranium covered by that general license.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-305 renumbered to R12-1-306, new Section R12-1-305 renumbered from R12-1-304 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-305 renumbered to R12-1-304; new Section R12-1-305 renumbered from R12-1-306 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-306. General License - Radioactive Material Other Than Source Material**

**A.** This subsection establishes a general license to transfer, receive, acquire, possess, and use radioactive material incorporated in the following devices or equipment which have been manufactured, tested and labeled by the manufacturer

according to a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission under 10 CFR 31.3. This general license is subject to the provisions of 12 A.A.C. 1, Articles 1, 4, 10 and 12; Sections R12-1-303(A)(2), R12-1-313, R12-1-318, R12-1-319, and R12-1-321; and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689.

1. Static elimination device. Devices designed for use as static eliminators which contain, as a sealed source or sources, radioactive material consisting of a total of not more than 18.5 MBq (500 microcuries) of polonium-210 per device.
2. Ion generating tube. Devices designed for ionization of air which contain, as a sealed source or sources, radioactive material consisting of a total of not more than 18.5 MBq (500 microcuries) of polonium-210 per device or a total of not more than 1.85 GBq (50 millicuries) of hydrogen-3 (tritium) per device.

**B.** Certain measuring, gauging or controlling devices

1. This subsection establishes a general license for commercial and industrial firms; research, educational and medical institutions; individuals for conducting business; and State or local government agencies to receive, acquire, possess, use or transfer radioactive material according to the provisions of subsections (B)(2), (3), and (4), excluding special nuclear material, contained in devices designed and manufactured for the purpose of detecting, measuring, gauging or controlling thickness, density, level, interface location, radiation, leakage, or qualitative or quantitative chemical composition, or for producing light or an ionized atmosphere.
2. The general license in subsection (B)(1) applies only to radioactive material contained in devices which have been manufactured and labeled according to specifications contained in a specific license issued by the Agency under R12-1-311(D) or in accordance with the specifications contained in a specific license issued by the U.S. Nuclear Regulatory Commission or an Agreement State which authorizes distribution of devices to persons generally licensed by the NRC or an Agreement State. Regulations promulgated under the Federal Food, Drug, and Cosmetic Act, authorizing the use of radioactive control devices in food production, require certain additional labeling prescribed in 21 CFR 179.21.
3. Any person who owns, receives, acquires, possesses, uses, or transfers radioactive material in a device according to the general license in subsection (B)(1):
   a. Shall assure that all labels are affixed to the device at the time of receipt, each bearing a statement that removal of the label is prohibited, maintain the labels on the device and comply with all instructions and precautions provided on the labels;
   b. Shall assure that the device is tested for leakage of radioactive material and proper operation of the actuation mechanism and indicator, if any, at no longer than 6-month intervals or the intervals specified on the label; however;
      i. Devices containing only krypton need not be tested for leakage of radioactive material;
      ii. Devices containing only tritium or not more than 3.7 MBq (100 microcuries) of other beta or gamma emitting material or 370 kBq (10 microcuries) of alpha emitting material; and
      iii. Devices held in storage in the original shipping container prior to initial installation need not be tested for any purpose,
   c. Shall assure that the tests required by subsection (B)(3)(b) and other testing, installation, servicing, and removal from installation involving shielding, containment, or radioactive material, are performed:
      i. According to the instructions on any label, or
      ii. By a person holding a specific license from the Agency, the NRC, or an Agreement State or Licensing State to perform the specified activities;
   d. Shall maintain records showing compliance with the requirements of subsections (B)(3)(b) and (c). The records shall show the results of tests. The records also shall show the dates of performance of, and the names of persons performing, testing, installation, servicing, and removal or other work concerning shielding, containment, or radioactive material. Records of tests for leakage of radioactive material required by subsection(B)(3)(b) shall be maintained for 1 year after the next required leak test is performed or until the sealed source is disposed of or transferred. Records of tests of the actuator mechanism and indicator required by subsection (B)(3)(b) shall be maintained for 1 year after the next required test of the actuator mechanism and indicator is performed or until the sealed source is disposed of or transferred. Records which are required by subsection (B)(3)(c) shall be maintained for 2 years from the date of the recorded event or until the device is disposed of or transferred;
   e. Upon failure or damage, or any indication of possible failure or damage of shielding or the actuation mechanism or indicator, or upon the detection of 185 Bq (5 nanocurie) or more removable radioactive material, shall immediately suspend operation of the device until it has been repaired by the manufacturer or other person holding a specific license from the Agency, the NRC or an Agreement State or Licensing State to repair the device, or disposed of by transfer to a person authorized by a specific license to receive the radioactive material contained in the device and, within 30 days, furnish to the Agency a report containing a brief description of the event and the remedial action taken;
   f. Shall not abandon the device containing radioactive material;
   g. Except as provided in subsection (B)(3)(h), shall transfer or dispose of the device containing radioactive material only by transfer to a specific licensee of the Agency, the NRC, or an Agreement State or Licensing State whose specific license authorizes the receipt of the device and, within 30 days after transfer, furnish a report to the Agency identifying the device by manufacturer's name and model number and the name and address of the person receiving the device. No report is required if the device is transferred to the specific licensee in order to obtain a replacement device;
   h. Shall transfer the device to another general licensee only:
      i. If the device remains in use at a particular location. The transferor shall give the transferee a copy of this rule and any safety documents identified on the label of the device and within 30 days after the transfer, report to the Agency the manufacturer's name, the model number of the device transferred, the name and address of

the transferee, and the name or position or both of a contact person for the Agency; or

ii. Where the device is held in storage in the original shipping container at its intended location of use prior to initial use by a general licensee;

i. Shall comply with the provisions of R12-1-443 and R12-1-444 for reporting radiation incidents, theft, or loss of licensed material, but is exempt from the other requirements of 12 A.A.C. 1, Articles 4 and 10.

4. The general license in subsection (B)(1) does not authorize the manufacture of devices containing radioactive material.
5. The general license provided in subsection (B)(1) is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15, and A.R.S. §§ 30-654(B)(13), 30-657 (A) and (B), 30-681, and 30-685 through 30-689.

**C.** Luminous safety devices for aircraft

1. This subsection establishes a general license for the receipt, acquisition, possession, and use of tritium or promethium-147 contained in luminous safety devices for use in aircraft, provided:
   a. Each device contains not more than 370 GBq (10 curies) of tritium or 11.1 GBq (300 millicuries) of promethium-147; and
   b. Each device has been manufactured, assembled or imported according to a specific license issued by the U.S. Nuclear Regulatory Commission, or each device has been manufactured or assembled according to the specifications contained in a specific license issued by the Agency or any Agreement State or Licensing State to the manufacturer or assembler of the device according to licensing requirements equivalent to those in 10 CFR 32.53.
2. Persons who receive, acquire, possess, or use luminous safety devices according to the general license in subsection (C)(1) are exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10 except that they shall comply with the provisions of R12-1-443 and R12-1-444.
3. This general license does not authorize the manufacture, assembly, or repair of luminous safety devices containing tritium or promethium-147.
4. This general license does not authorize the ownership, receipt, acquisition, possession, or use of radioactive materials contained in instrument dials.
5. This general license is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15 and A.R.S.§§ 30-654(B)(13), 30-657(A), 30-657(B), 30-681, and 30-685 through 30-689.

**D.** Calibration and reference sources

1. This subsection establishes a general license for those persons listed below to receive, acquire, possess, use, and transfer, according to the provisions of subsections (D)(4) and (5), americium-241 in the form of calibration or reference sources:
   a. Any person who holds a specific license issued by the Agency which authorizes the receipt, possession, use, and transfer of radioactive material; and
   b. Any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission which authorizes the receipt, possession, use, and transfer of special nuclear material.
2. This subsection establishes a general license for ownership, receipt, possession, use, and transfer of plutonium in the form of calibration or reference sources to any person who holds a specific license issued by the Agency authorizing receipt, possession, use, and transfer of radioactive material.
3. This subsection establishes a general license to receive, possess, use and transfer radium-226 in the form of calibration or reference sources to any person who holds a specific license issued by the Agency authorizing receipt, possession, use, and transfer of radioactive material.
4. The general licenses in subsections (D)(1), (2), and (3) apply to calibration or reference sources which have been manufactured according to the specifications contained in a specific license issued to the manufacturer or importer of the sources by the U.S. Nuclear Regulatory Commission in 10 CFR 32.57 or 10 CFR 70.39. The general licenses also apply to calibration or reference sources which have been manufactured according to the specifications contained in a specific license issued to the manufacturer by the Agency or any Agreement State or Licensing State according to licensing requirements equivalent to those contained in 10 CFR 32.57 or 10 CFR 70.39.
5. The general licenses provided in Subsections (D)(1), (2), and (3) are subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 4, 10, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30-657(A), 30-657(B), 30-681, and 30-685 through 30-689. In addition, persons who own, receive, acquire, possess, use, or transfer 1 or more calibration or reference sources according to these general licenses:
   a. Shall not possess at any 1 time, at any location of storage or use, more than 185 kBq (5 microcuries) of americium-241, plutonium, or radium-226 in calibration or reference sources;
   b. Shall not receive, possess, use, or transfer a calibration or reference source unless the source, or the storage container, bears a label which includes 1 of the following statements or a substantially similar statement which contains the information called for in 1 of the following statements:
      i. The receipt, possession, use and transfer of this source, Model _____, Serial No. _____, are subject to a general license and the regulations of the U.S. Nuclear Regulatory Commission or of a State with which the Commission has entered into an agreement for the exercise of regulatory authority. Do not remove this label.
      CAUTION -- RADIOACTIVE MATERIAL -- THIS SOURCE CONTAINS (name of the appropriate material) -- DO NOT TOUCH RADIOACTIVE PORTION OF THIS SOURCE.

      _____
      Name of manufacturer or importer

      ii. The receipt, possession, use and transfer of this source, Model _____, Serial No. _____, are subject to a general license and the regulations of any Licensing State. Do not remove this label.
      CAUTION -- RADIOACTIVE MATERIAL -- THIS SOURCE CONTAINS RADIUM-226. DO NOT TOUCH RADIOACTIVE PORTION OF THIS SOURCE.

      _____
      Name of manufacturer or importer
   c. Shall not transfer, abandon, or dispose of a calibration or reference source except by transfer to a person authorized by a license from the Agency, the

U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State to receive the source;

d. Shall store a calibration or reference source, except when the source is being used, in a closed container adequately designed and constructed to contain americium-241, plutonium, or radium-226 which might otherwise escape during storage; and

e. Shall not use a calibration or reference source for any purpose other than the calibration of radiation detectors or the standardization of other sources.

6. These general licenses do not authorize the manufacture of calibration or reference sources containing americium-241, plutonium, or radium-226.

**E.** Medical diagnostic uses

Receipt, possession, use, transfer, ownership or acquisition of carbon-14 urea capsules containing 1 microcurie of carbon-14 urea for "in vivo" human diagnostic use:

1. Except as provided in subsections (E)(2) and (3), a physician is exempt from the requirements for a specific license provided that each carbon-14 urea capsule for "in vivo" diagnostic use contains no more than 1 microcurie.
2. Any physician who desires to use the capsules for research involving human subjects shall obtain a specific license issued according to the specific licensing requirements in this Article.
3. Any physician who desires to manufacture, prepare, process, produce, package, repackage, or transfer for commercial distribution carbon-14 urea capsules shall obtain a specific license from the Agency, issued according to the requirements in 10 CFR 32, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of Secretary of State. This incorporation by reference contains no future editions or amendments.
4. Nothing in this subsection relieves physicians from complying with applicable FDA and other federal and state requirements governing receipt, administration, and use of drugs.

**F.** General license for use of radioactive material for certain in vitro clinical or laboratory testing

1. This subsection establishes a general license for any physician, clinical laboratory, or hospital to receive, acquire, possess, transfer, or use, for any of the following stated tests, the following radioactive materials in prepackaged units:
   a. Iodine-125, in units not exceeding 370 kBq (10 microcuries) each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or radiation from such material, to human beings or animals.
   b. Iodine-131, in units not exceeding 370 kBq (10 microcuries) each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
   c. Carbon-14, in units not exceeding 370 kBq (10 microcuries) each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
   d. Hydrogen-3 (tritium), in units not exceeding 1.85 MBq (50 microcuries) each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
   e. Iron-59, in units not exceeding 740 kBq (20 microcuries) each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
   f. Cobalt-57, in units not exceeding 370 kBq (10 microcuries) each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
   g. Mock iodine-125 reference or calibration sources, in units not exceeding 1.85 kBq (50 nanocurie) of iodine-129 and 185 Bq (5 nanocurie) of americium-241 each, for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
2. A person shall not acquire, receive, possess, use or transfer radioactive material according to the general license established by subsection (F)(1) until the person has filed ARRA-9, "Certificate -- In Vitro Testing with Radioactive Material Under General License", requesting the information listed in Exhibit E, with the Agency and received a validated copy of ARRA-9 which shows the assigned certification number. The physician, clinical laboratory, or hospital shall furnish on ARRA-9 the following information:
   a. Name, telephone number, and address of the physician, clinical laboratory, or hospital; and
   b. A statement that the physician, clinical laboratory, or hospital has appropriate radiation measuring instruments to carry out in vitro clinical or laboratory tests with radioactive material and that tests will be performed only by personnel competent to use the appropriate instruments and handle the radioactive material.
3. A person who receives, acquires, possesses or uses radioactive material according to the general license established by subsection (F)(1) shall comply with the following:
   a. The general licensee shall not possess at any 1 time, in storage or use, a total amount of iodine-125, iodine-131, iron-59, or cobalt-57 in excess of 7.4 MBq (200 microcuries), or acquire or use in any 1 calendar month any more than 18.5 MBq (500 microcuries) of these materials.
   b. The general licensee shall store the radioactive material, until used, in the original shipping container or in a container providing equivalent radiation protection.
   c. The general licensee shall use the radioactive material only for the uses authorized by subsection (F)(1).
   d. The general licensee shall not transfer the radioactive material to a person who is not authorized to receive it according to a license issued by the Agency, the U.S. Nuclear Regulatory Commission, or any Agreement State or Licensing State, or transfer the radioactive material in any manner other than in the unopened, labeled shipping container received from the supplier.
   e. The general licensee shall not dispose of the mock iodine-125 reference or calibration sources described above except as authorized by R12-1-434.

4. The general licensee shall not receive, acquire, possess, or use radioactive material according to subsection (F)(1):
   a. Except as prepackaged units which are labeled according to the provisions of a specific license issued by the U.S. Nuclear Regulatory Commission, or any Agreement State which authorizes the manufacture and distribution of iodine-125, iodine-131, carbon-14, hydrogen-3 (tritium), iron-59, cobalt-57, or mock iodine-125 for distribution to persons generally licensed under subsection (F) or its equivalent federal law, and
   b. Unless 1 of the following statements, or a substantially similar statement which contains the same information, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:
      i. This radioactive material may be acquired, received, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from such material, to human beings or animals. The acquisition, receipt, possession, use, and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the Commission has entered into an agreement for the exercise of regulatory authority.

         _____
         Name of manufacturer

      ii. This radioactive material shall be acquired, received, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from such material, to human beings or animals. The receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of a Licensing State.

         _____
         Name of manufacturer
5. A physician, clinical laboratory or hospital possessing or using radioactive material under the general license in subsection (F)(1) shall report in writing to the Agency, any changes in the information furnished on the ARRA-9. The report shall be furnished within 30 days after the effective date of the change.
6. Any person using radioactive material according to the general license of subsection (F)(1) is exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10 with respect to radioactive material covered by that general license, except that persons using mock iodine-125 sources described in subsection (F)(1)(g) shall comply with the provisions of R12-1-434, R12-1-443, and R12-1-444 of these rules.
7. For the purposes of subsection (F), a licensed veterinary care facility is considered a "clinical laboratory".

**G.** Ice detection devices
1. This subsection establishes a general license to receive, acquire, possess, use, and transfer strontium-90 contained in ice detection devices, provided each device contains not more than 1.85 Mbq (50 µCi) of strontium-90 and each device has been manufactured or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission or each device has been manufactured according to the specifications contained in a specific license issued by the Agency or any Agreement State to the manufacturer of the device under licensing requirements equivalent to those in 10 CFR 32.61.
2. Persons who receive, acquire, possess, use, or transfer strontium-90 contained in ice detection devices according to the general license in subsection (G)(1):
   a. Shall, upon occurrence of visually observable damage, such as a bend or crack or discoloration from overheating, discontinue use of the device until it has been inspected, tested for leakage, and repaired by a person holding a specific license from the U.S. Nuclear Regulatory Commission or an Agreement State to manufacture or service ice detection devices; or shall dispose of the device according to the provisions of R12-1-434;
   b. Shall assure that all labels affixed to the device at the time of receipt, and which bear a statement prohibiting removal of the labels, are maintained on the devices; and
   c. Are exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10, except the users of ice detection devices shall comply with the provisions of R12-1-434, R12-1-443 and R12-1-444.
3. This general license does not authorize the manufacture, assembly, disassembly or repair of strontium-90 in ice detection devices.
4. This general license is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15, and A.R.S. §§ 30-654(B), 30-657(A), 30-657(B), 30-681, and 30-685 through 30-689.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-306 renumbered to R12-1-307, new Section R12-1-306 renumbered from R12-1-305 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-306 renumbered to R12-1-305; new Section R12-1-306 renumbered from R12-1-307 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-307. Repealed**

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective December 20, 1985 (Supp. 85-6). Former Section R12-1-307 renumbered to R12-1-308, new Section R12-1-307 renumbered from R12-1-306 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-307 renumbered to R12-1-306; new Section R12-1-307 renumbered from R12-1-308 and repealed by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-308. Filing Application for Specific Licenses**

**A.** An applicant for a specific license shall file an Agency application. The applicant shall prepare the application in duplicate, 1 copy for the Agency and the other for the applicant.

**B.** The Agency may at any time after the filing of the original application, and before the expiration of the license, require further statements in order to enable the Agency to determine whether the application should be granted or denied or whether a license should be modified or revoked.

**C.** Each application shall contain the information specified in Exhibit (E) of this Article and be signed by the applicant, licensee, or person duly authorized to act for the applicant or licensee.

**D.** An application for a license may include a request for a license authorizing more than 1 activity authorized by R12-1-1302.

**E.** In the application, the applicant may incorporate by reference information contained in previous applications, statements, or reports filed with the Agency provided the references are clear and specific.

**F.** The Agency shall make applications and documents submitted to the Agency available for public inspection, but may withhold any document or part of a document from public inspection if disclosure of its content is not required in the public interest and would adversely affect the interest of a person concerned.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-308 renumbered to R12-1-309, new Section R12-1-308 renumbered from R12-1-307 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-308 renumbered to R12-1-307; new Section R12-1-308 renumbered from R12-1-309 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-309. General Requirements for the Issuance of Specific Licenses**

A license application shall be approved if the Agency determines that:

1. The applicant is qualified by reason of training and experience to use the material in question for the purpose requested according to these rules, in a manner that will minimize danger to public health and safety or property;
2. The applicant's proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or property;
3. The issuance of the license will not be inimical to the health and safety of the public;
4. The applicant satisfies all applicable special requirements in R12-1-310, R12-1-311, R12-1-322, R12-1-323, 12 A.A.C. 1, Article 5, 7, and 17; and
5. The applicant demonstrates that a letter has been sent, return receipt requested, to the Mayor's office of the city, town, or, if not within an incorporated community, to the County Board of Supervisors of the county in which the applicant proposes to operate which describes:
   a. The nature of the proposed activity involving radioactive material;
   b. The facility, including use and storage areas.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-309 renumbered to R12-1-310, new Section R12-1-309 renumbered from R12-1-308 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-309 renumbered to R12-1-308; new Section R12-1-309 renumbered from R12-1-310 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-310. Special Requirements for Issuance of Specific Broad Scope Licenses**

**A.** The Agency shall issue 3 classes of academic and industrial broad scope licenses, and only a single class A medical broad scope license.

1. A license is a broad scope class A license if it:
   a. Contains the exact wording "Any radioactive material with Atomic Number 3 through 83" or "Any radioactive material with Atomic Number 84 through 92" in License Item 6, and
   b. Contains the word "any" to authorize the chemical or physical form of the materials in License Item 7.

   The license may authorize the radioactive materials in multi-curie quantities, and may authorize other radioactive materials and forms in addition to those listed in subsection (A)(1)(a).
2. A broad scope class B license is any specific license which authorizes the possession and use of the radioactive materials specified in Exhibit C of 12 A.A.C. 1, Article 3 in any chemical or physical form and in quantities determined as follows:
   a. The possession limit, if only 1 radionuclide is possessed, is the quantity specified for that radionuclide in Exhibit C, Column I, or
   b. The possession limit for multiple radionuclides is determined as follows: The sum of the ratios for all radionuclides possessed under the license shall not exceed unity (1). The ratio for each radionuclide is determined by dividing the quantity possessed by the applicable quantity in Exhibit C, Column I.
3. A broad scope class C license is any specific license authorizing the possession and use of the radioactive materials specified in Exhibit C of 12 A.A.C. 1, Article 3 in any chemical or physical form and in quantities determined as follows:
   a. The possession limit, if only 1 radionuclide is possessed, is the quantity specified for that radionuclide in Exhibit C, Column II, or
   b. The possession limit for multiple radionuclides is determined as follows: The sum of the ratios for all radionuclides possessed under the license shall not exceed unity (1). The ratio for each radionuclide is determined by dividing the quantity possessed by the applicable quantity in Exhibit C, Column II.

**B.** The Agency shall approve:

1. An application for a class A broad scope license if:
   a. The applicant satisfies the general requirements specified in R12-1-309;
   b. The applicant has engaged in a reasonable number of activities involving the use of radioactive material. For purposes of this subsection, the requirement of "reasonable number of activities" can be satisfied by showing that the applicant has 5 years of experience in the use of radioactive material. The Agency may accept less than 5 years of experience if the applicant's qualifications are adequate for the scope of the proposed license; and
   c. The applicant has established administrative controls and provisions relating to organization, management, procedures, recordkeeping, material control, accounting, and management review that are necessary to assure safe operations, including:
      i. Establishment of a radiation safety committee composed of a radiation safety officer, a representative of management, and persons trained

and experienced in the safe use of radioactive material;

ii. Appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and

iii. Establishment of appropriate administrative procedures to assure:
Control of procurement and use of radioactive material;
Completion of safety evaluations of proposed uses of radioactive material which take into consideration matters such as the adequacy of facilities and equipment, training and experience of the user, and operating or handling procedures; and
Review, approval, and recording by the radiation safety committee of safety evaluations of proposed uses prepared in accordance with this subsection prior to use of the radioactive material.

2. An application for a class B broad scope license if:
   a. The applicant satisfies the general requirements specified in R12-1-309; and
   b. The applicant has established administrative controls and provisions relating to organization, management, procedures, recordkeeping, material control, accounting, and management review that are necessary to assure safe operations, including:
      i. Appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and available for advice and assistance on radiation safety matters; and
      ii. Establishment of appropriate administrative procedures to assure:
      Control of procurement and use of radioactive material;
      Completion of safety evaluations of proposed uses of radioactive material which take into consideration matters such as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures; and
      Review, approval, and recording by the radiation safety officer of safety evaluations of proposed uses prepared according to subsection (B)(2)(b)(ii) prior to use of the radioactive material.
3. An application for a class C broad scope license if:
   a. The applicant satisfies the general requirements specified in R12-1-309;
   b. The applicant submits a statement that radioactive material will be used only by, or under the direct supervision of, individuals who have received:
      i. A college degree at the bachelor level, or equivalent training and experience, in the physical or biological sciences or in engineering; and
      ii. At least 40 hours of training and experience in the safe handling of radioactive material, the characteristics of ionizing radiation, units of dose and quantities, radiation detection instrumentation, and biological hazards of exposure to radiation appropriate to the type and forms of radioactive material to be used; and
   c. The applicant has established administrative controls and provisions relating to procurement of radioactive material, procedures, recordkeeping, material control and accounting, and management review necessary to assure safe operations.

**C.** Unless specifically authorized, broad-scope licensees shall not:
1. Conduct tracer studies in the environment involving direct release of radioactive material;
2. Acquire, receive, possess, use, or transfer devices containing 3.7 petabecquerel (100,000 curies) or more of radioactive material in sealed sources used for irradiation of materials;
3. Conduct activities for which a specific license is issued under R12-1-311, and 12 A.A.C. 1, Articles 5, 7, or 17; or
4. Add or cause the addition of radioactive material to any food, beverage, cosmetic, drug, or other product designed for ingestion or inhalation by, or application to, a human being.

**D.** Radioactive material possessed under the class A broad scope license shall only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety committee.

**E.** Radioactive material possessed under the class B broad scope license shall only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety officer.

**F.** Radioactive material possessed under the class C broad scope license shall only be used by, or under the direct supervision of, individuals who satisfy the requirements of R12-1-310(B)(3)(b).

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended effective November 5, 1993 (Supp. 93-4). Former Section R12-1-310 renumbered to R12-1-311, new Section R12-1-310 renumbered from R12-1-309 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-310 renumbered to R12-1-309; new Section R12-1-310 renumbered from R12-1-311 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-311. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices Which Contain Radioactive Material**

**A.** Licensing the introduction of radioactive material into products in exempt concentrations.
1. In addition to the requirements set forth in R12-1-309, a specific license authorizing the introduction of radioactive material into a product or material owned by or in the possession of the licensee or another to be transferred to persons exempt under R12-1-303(A)(1) shall be issued if:
   a. The applicant submits a description of the product or material into which the radioactive material will be introduced, intended use of the radioactive material and the product or material into which it is introduced, method of introduction, initial concentration of the radioactive material in the product or material, control methods to assure that no more than the specified concentration is introduced into the product or material, estimated time interval between introduction and transfer of the product or material, and estimated concentration of the radioactive material in the product or material at the time of transfer; and

b. The applicant provides reasonable assurance that the concentrations of radioactive material at the time of transfer will not exceed the concentrations in Exhibit A; reconcentration of the radioactive material in concentrations exceeding those in Exhibit A is not likely; use of lower concentrations is not feasible; and product or material is not likely to be incorporated in any food, beverage, cosmetic, drug, or other commodity or product designed for ingestion or inhalation by, or application to, a human being.

2. Each person licensed under this subsection shall file an annual report with the Agency which identifies the type and quantity of each product or material into which radioactive material has been introduced during the reporting period; the name and address of the person who owned or possessed the product or material, into which radioactive material has been introduced, at the time of introduction; the type and quantity of radionuclide introduced into each product or material; and the initial concentrations of the radionuclide in the product or material at time of transfer of the radioactive material by the licensee. If no transfers of radioactive material have been made according to this subsection during the reporting period, the report shall so indicate. The report shall cover the year ending June 30, and be filed within 30 days after June 30.

**B.** Licensing the distribution of naturally occurring and accelerator-produced radioactive material (NARM) in exempt quantities.

1. An application for a specific license to distribute NARM to persons exempted from these rules according to R12-1-303(C) will be approved if the applicant satisfies the requirements of R12-1-309, and:
   a. The radioactive material is not contained in any food, beverage, cosmetic, drug, or other commodity designed for ingestion or inhalation by, or application to, a human being;
   b. The radioactive material is in the form of processed chemical elements, compounds, or mixtures, tissue samples, bioassay samples, counting standards, plated or encapsulated sources, or similar substances, identified as radioactive and to be used for its radioactive properties, but it is not incorporated into any manufactured or assembled commodity, product, or device intended for commercial distribution; and
   c. The applicant submits copies of prototype labels and brochures and the Agency approves the labels and brochures.
2. The licensee issued under subsection (B)(1) is subject to the following conditions:
   a. No more than 10 exempt quantities shall be sold or transferred in any single transaction. However, an exempt quantity may be composed of fractional parts of 1 or more of the exempt quantity provided the sum of the fractions shall not exceed unity.
   b. Each exempt quantity shall be separately and individually packaged. No more than 10 packaged exempt quantities shall be contained in any outer package for transfer to persons exempt according to R12-1-303(C). The outer package shall be such that the dose rate at the external surface of the package does not exceed 5 u Sv (0.5 millirem) per hour.
   c. The immediate container of each quantity or separately packaged fractional quantity of radioactive material shall bear a durable, legible label which
      i. Identifies the radionuclide and the quantity of radioactivity, and
      ii. Bears the words "Radioactive Material".
   d. In addition to the labeling information required by subsection (B)(2)(c), the label affixed to the immediate container, or an accompanying brochure, shall
      i. State that the contents are exempt from Licensing State requirements;
      ii. Bear the words "Radioactive Material -- Not for Human Use -- Introduction into Foods, Beverages, Cosmetics, Drugs, or Medicinals, or into Products Manufactured for Commercial Distribution is Prohibited -- Exempt Quantities Should Not Be Combined"; and
      iii. Set forth appropriate additional radiation safety precautions and instructions relating to the handling, use, storage, and disposal of the radioactive material.
3. Each person licensed under subsection (B) shall maintain records identifying, by name and address, each person to whom radioactive material is transferred for use under R12-1-303(C) or the equivalent regulations of a Licensing State, and stating the kinds and quantities of radioactive material transferred. An annual summary report stating the total quantity of each radionuclide transferred under the specific license shall be filed with the Agency. Each report shall cover the year ending June 30, and shall be filed within 30 days after June 30. If no transfers of radioactive material have been made according to this subsection during the reporting period, the report shall so indicate.

**C.** The Agency shall approve an application for a specific license authorizing the incorporation of radioactive material, other than source or by-product material, into gas and aerosol detectors to be distributed to persons exempt under R12-1-303(B) if the application satisfies requirements equivalent to those contained in 10 CFR 32.26, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of the Secretary of State which shall not contain any future editions or references, and provided:

1. The applicant satisfies the requirements of R12-1-309.
2. The licensee files annual reports required by 10 CFR 32.29, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of the Secretary of State, with the Agency. This incorporation by reference contains no future editions or references.

**D.** Licensing the manufacture and distribution of devices to persons generally licensed under R12-1-306(B).

1. The Agency shall approve an application for a specific license to manufacture or distribute devices containing radioactive material, excluding special nuclear material, to persons generally licensed under R12-1-306(B) or equivalent regulations of the U.S. NRC, an Agreement State, or the Licensing State if:
   a. The applicant satisfies the general requirements of R12-1-309;
   b. The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control, labels, proposed uses, installation, servicing, leak testing, operating and safety instructions, and potential hazards of the device to provide reasonable assurance that:
      i. The device can be safely operated by persons not having training in radiological protection;

ii. Under ordinary conditions of handling, storage, and use of the device, the radioactive material contained in the device will not be released or inadvertently removed from the device, and it is unlikely that any person will receive a dose in excess of 10% of the limits specified in R12-1-408; and

iii. Under accident conditions (such as fire and explosion) associated with handling, storage, and use of the device, it is unlikely that any person would receive an external radiation dose or dose commitment in excess of the following organ doses:

Whole body; head and trunk; active blood-forming organs; gonads; or lens of eye . . . . . 150 mSv (15 rem)
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than 1 square centimeter . . . . . 2 Sv (200 rem)
Other organs . . . . . 500 mSv (50 rem)

c. Each device bears a durable, legible, clearly visible label or labels which contain in a clearly identified and separate statement:

i. Instructions and precautions necessary to assure safe installation, operating, and servicing of the device (documents such as operating and service manuals may be identified in the label and used to provide this information);

ii. The requirement, or lack of requirement, for leak testing, or for testing any on-off mechanism and indicator, including the maximum time interval for the testing, and the identification of radioactive material by isotope, quantity of radioactivity, and date of determination of the quantity; and

iii. The information called for in 1 of the following statements in the same or substantially similar form:

The receipt, possession, use, and transfer of this device, Model _____, Serial No. _____, are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or a state with which the Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.

CAUTION -- RADIOACTIVE MATERIAL

_____
(name of manufacturer or distributor)

The receipt, possession, use and transfer of this device, Model _____, Serial No. _____, are subject to a general license or the equivalent, and the regulations of a Licensing State. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.

CAUTION -- RADIOACTIVE MATERIAL

_____
(name of manufacturer or distributor)

d. The model, serial number, and name of manufacturer or distributor may be omitted from this label provided they are elsewhere specified in labeling affixed to the device.

2. In the event the applicant desires that the device undergo mandatory testing at intervals longer than 6 months, either for proper operation of the on-off mechanism and indicator, if any, or for leakage of radioactive material or for both, the application shall contain sufficient information to demonstrate that the longer interval is justified by performance characteristics of the device or similar devices and by design features which have a significant bearing on the probability or consequences of leakage of radioactive material from the device or failure of the on-off mechanism and indicator. In determining the acceptable interval for the test for leakage of radioactive material, the Agency shall consider information which includes, but is not limited to:
   a. Primary containment (source capsule);
   b. Protection of primary containment;
   c. Method of sealing containment;
   d. Containment construction materials;
   e. Form of contained radioactive material;
   f. Maximum temperature withstood during prototype tests;
   g. Maximum pressure withstood during prototype tests;
   h. Maximum quantity of contained radioactive material;
   i. Radiotoxicity of contained radioactive material; and
   j. Operating experience with identical devices or similarly designed and constructed devices.

3. In the event the applicant desires that the general licensee under R12-1-306(B), or under equivalent regulations of the NRC or an Agreement State or Licensing State, be authorized to install the device, collect the sample to be analyzed by a specific licensee for leakage of radioactive material, service the device, test the on-off mechanism and indicator, or remove the device from installation, the application shall include written instructions to be followed by the general licensee, estimated calendar quarter doses associated with the activity or activities, and bases for the estimates. The submitted information shall demonstrate that performance of the activity or activities by an individual untrained in radiological protection, in addition to other handling, storage, and use of devices under the general license, is unlikely to cause that individual to receive a dose in excess of 10% of the limits specified in R12-1-408.

4. Each person licensed under subsection (D) to distribute devices to general licensed persons shall:
   a. Furnish a copy of the general license contained in R12-1-306(B) to each person to whom the individual, directly or through an intermediate person, transfers radioactive material in a device for use according to the general license contained in R12-1-306(B).
   b. Furnish a copy of the general license contained in the NRC or Agreement State's or Licensing State's regulation equivalent to R12-1-306(B), or alternatively, furnish a copy of the general license contained in R12-1-306(B) to each person to whom the individual, directly or through an intermediate person, transfers radioactive material in a device for use according to the general license of the NRC, Agreement State, or Licensing State. If a copy of the general license in R12-1-306(B) is furnished to a person, it shall be accompanied by a note explaining

that the use of the device is regulated by the U.S. NRC, Agreement State, or Licensing State under requirements substantially the same as those in R12-1-306(B).

c. Report to the Agency all transfers of devices to persons for use under the general license in R12-1-306(B). The report shall identify each general licensee by name and address, an individual by name or position who serves as the contact person for the general licensee, the type and model number of device transferred, and the quantity and type of radioactive material contained in the device. If 1 or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall identify each intermediate person by name, address, contact, and relationship to the intended user. If no transfers have been made to persons generally licensed under R12-1-306(B) during the reporting period, the report shall so indicate. The report shall cover each calendar quarter and be filed within 30 days after the end of the quarter.

d. Report to the NRC all transfers of devices to persons for use under the NRC general license in 10 CFR 31.5.

e. Report to the responsible Agreement State or Licensing State agency all transfers of devices to persons for use under a general license in an Agreement State's regulation equivalent to R12-1-306(B).

i. The report shall identify each general licensee by name and address, an individual by name or position who serves as the contact person for the general licensee, the type and model of the device transferred, and the quantity and type of radioactive material contained in the device. If 1 or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall identify each intermediate person by name, address, contact, and relationship to the intended user. The report shall be submitted within 30 days after the end of each calendar quarter in which a device is transferred to the generally licensed person.

ii. If no transfers have been made to NRC licensees during the reporting period, this information shall be reported to the NRC.

iii. If no transfers have been made to a particular state during the reporting period, this information shall be reported to the responsible state agency upon request of the agency; and

f. Keep records showing the name, address, and the contact person for each general licensee to whom the distributor, directly or through an intermediate person, transfers radioactive material in devices for use according to the general license provided in R12-1-306(B), or equivalent regulations of the NRC, an Agreement State, or Licensing State. The records should show the date of each transfer, the isotope and the quantity of radioactivity in each device transferred, the identity of any intermediate person, and compliance with the report requirements of this Section.

**E.** The Agency shall approve an application for a specific license to manufacture, assemble, or repair luminous safety devices containing tritium or promethium-147 for use in aircraft, for distribution to persons generally licensed under R12-1-306(C), if the applicant satisfies:

1. The general requirements specified in R12-1-309; and
2. The requirements of 10 CFR 32.53 through 32.56 and 32.101, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of the Secretary of State, or their equivalent. These incorporations by reference contain no future editions or amendments.

**F.** The Agency shall approve an application for a specific license to manufacture calibration sources containing americium-241 or plutonium for distribution to persons generally licensed under R12-1-306(D) if the applicant satisfies:

1. The general requirements of R12-1-309; and
2. The requirements of 10 CFR 32.57, 32.58, 32.102, and 70.39, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of the Secretary of State, or their equivalent. These incorporations by reference contain no future editions or amendments.

**G.** In addition to requirements set forth in R12-1-309, the Agency shall issue a specific license authorizing the distribution of radioactive material for use by physicians under the general license in R12-1-306(E) if:

1. The applicant submits evidence that the radioactive material is to be manufactured, labeled, and packaged under a new drug application which the Commissioner of Food and Drugs, U.S. Food and Drug Administration has approved, or according to a license for a biologic product issued by the FDA; and
2. One of the following statements, or a substantially similar statement which contains the information called for in the following statements, appears on the label affixed to the container or appears in the leaflet or brochure which accompanies the package:

a. This radioactive drug may be received, possessed, and used only by physicians licensed to dispense drugs in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and general license or its equivalent of the U.S. Nuclear Regulatory Commission or of a state with which the Commission has entered into agreement for the exercise of regulatory authority.

_____
Name of Manufacturer

b. This radioactive drug may be received, possessed, and used only by physicians licensed (to dispense drugs) in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and a general license or its equivalent of a Licensing State.

_____
Name of Manufacturer

**H.** The Agency shall approve an application for a specific license to manufacture or distribute radioactive material for use under the general license of R12-1-306(F) if:

1. The applicant satisfies the general requirements specified in R12-1-309.
2. The radioactive material is to be prepared for distribution in prepackaged units of:

a. Iodine-125 in units not exceeding 370 kBq (10 microcuries) each;

b. Iodine-131 in units not exceeding 370 kBq (10 microcuries) each;

c. Carbon-14 in units not exceeding 370 kBq (10 microcuries) each;

d. Hydrogen-3 (tritium) in units not exceeding 1.85 MBq (50 microcuries) each;
e. Iron-59 in units not exceeding 740 kBq (20 microcuries) each;
f. Cobalt-57 in units not exceeding 370 kBq (10 microcuries) each;
g. Mock iodine-125 in units not exceeding 1.85 kBq (50 nanocuries) of iodine-129 and 185 Bq (5 nanocuries) of americium-241 each.

3. Each prepackaged unit bears a durable, clearly visible label:
   a. Identifying the radioactive contents as to chemical form and radionuclide and indicating that the amount of radioactivity does not exceed 370 kBq (10 microcuries) of iodine-125, iodine-131, cobalt-57 or carbon-14; 1.85 MBq (50 microcuries) of hydrogen-3 (tritium), 740 kBq (20 microcuries) of iron-59; or mock iodine-125 in units not exceeding 1.85 kBq (50 nanocurie) of iodine-129 and 185 Bq (5 nanocuries) of americium-241 each; and
   b. Displaying the radiation caution symbol described in R12-1-428, the words, "CAUTION, RADIOACTIVE MATERIAL", and the phrase "Not for Internal or External Use in Humans or Animals".
4. One of the following statements, or a substantially similar statement which contains the information called for in the following statements appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:
   a. This radioactive material may be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from the radioactive material, to human beings or animals. Its receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the Commission has entered into an agreement for the exercise of regulatory authority.

      _____
      Name of Manufacturer

   b. This radioactive drug may be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from the radioactive material, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of a Licensing State.

      _____
      Name of Manufacturer

5. The label affixed to the unit, or the leaflet or brochure which accompanies the package, contains adequate information about the precautions to be observed in handling and storing the specified radioactive material. In the case of the mock iodine-125 reference or calibration source, the information accompanying the source must also contain directions to the licensee regarding the waste disposal requirements set out in R12-1-434.

**I.** The Agency shall approve an application for a specific license to manufacture and distribute ice detection devices to persons generally licensed under R12-1-306(G) if the applicant satisfies:
1. The general requirements of R12-1-309; and
2. The criteria of 10 CFR 32.61, 32.62, and 32.101, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of the Secretary of State. These incorporations by reference contain no future editions or amendments.

**J.** Manufacture and distribution of radiopharmaceuticals for medical use under a license issued according to 12 A.A.C. 1, Article 7.
1. The Agency shall approve an application for a specific license to manufacture and distribute radiopharmaceuticals for use by persons licensed under 12 A.A.C. 1, Article 7 if:
   a. The applicant satisfies the general requirements specified in R12-1-309; and
   b. The applicant submits evidence that:
      i. The radiopharmaceutical will be manufactured, labeled, and packed according to the Federal Food, Drug, and Cosmetic Act or the Public Health Service Act, a new drug application (NDA) approved by the Food and Drug Administration (FDA), a biological product license issued by the FDA or a "Notice of Claimed Investigational Exemption for a New Drug" (IND) that has been accepted by the FDA; or
      ii. The manufacture and distribution of the radiopharmaceutical is not subject to the Federal Food, Drug, and Cosmetic Act and the Public Health Service Act.
   c. The applicant submits information on the radionuclide; chemical and physical form, packaging including maximum activity per package, and shielding provided by the packaging of the radioactive material which is appropriate for safe handling and storage of radiopharmaceuticals by group licensees; and
   d. The label affixed to each package of the radiopharmaceutical contains information on the radionuclide; quantity, and date of assay; and the label affixed to each package, or the leaflet or brochure which accompanies each package, contains a statement that the radiopharmaceutical is licensed by the Agency for distribution to persons licensed according to the requirements in 12 A.A.C. 1, Article 7 or an equivalent license of the U.S. Nuclear Regulatory Commission or an Agreement State or Licensing State. The labels, leaflets or brochures required by this paragraph supplement the labeling required by the Food and Drug Administration (FDA) and they may be separate from or, with the approval of FDA, combined with the labeling required by FDA.
2. A radiopharmaceutical dispensed from a nuclear pharmacy according to A.R.S. § 32-1904 is exempt from the requirements contained in subsection (J)(1). Labeling of such radiopharmaceuticals is governed by Board of Pharmacy rules and the conditions of a radioactive material license.

**K.** The Agency shall approve an application for a specific license to manufacture and distribute generators or reagent kits containing radioactive material for preparation of radiopharmaceuticals by persons licensed according to 12 A.A.C. 1, Article 7 if:
1. The applicant satisfies the general requirements of R12-1-309;
2. The applicant submits evidence that:

a. The generator or reagent kit is to be manufactured, labeled and packaged according to the Federal Food, Drug, and Cosmetic Act or the Public Health Service Act, a new drug application (NDA) approved by the Food and Drug Administration (FDA), a biologic product license issued by FDA, or a "Notice of Claimed Investigational Exemption for a New Drug" (IND) that has been accepted by the FDA; or
b. The manufacture and distribution of the generator or reagent kit are not subject to the Federal Food, Drug, and Cosmetic Act and the Public Health Service Act.

3. The applicant submits information on the radionuclide; chemical and physical form, packaging including maximum activity per package, and shielding provided by the packaging of the radioactive material contained in the generator or reagent kit;
4. The label affixed to the generator or reagent kit contains information on the radionuclide, including quantity, and date of assay; and
5. The label affixed to the generator or reagent kit, or the leaflet or brochure which accompanies the generator or reagent kit, contains:
   a. Adequate information, from a radiation safety stand point, on the procedures to be followed and the equipment and shielding to be used in eluting the generator or processing radioactive material with the reagent kit, and
   b. A statement that this generator or reagent kit (as appropriate) is approved for use by persons licensed by the Agency under 12 A.A.C. 1, Article 7 or equivalent licenses of the U.S. Nuclear Regulatory Commission or an Agreement State or Licensing State. The labels, leaflets or brochures required by this subsection supplement the labeling required by FDA and they may be separate from or, with the approval of FDA, combined with the labeling required by FDA.

**L.** Manufacture and distribution of sources or devices containing radioactive material for medical use
1. The Agency shall approve an application for a specific license to manufacture and distribute sources and devices containing radioactive material to persons licensed under 12 A.A.C. 1, Article 7 for use as a calibration or reference source or for certain medical uses as sealed sources if:
   a. The applicant satisfies the general requirements in R12-1-309;
   b. The applicant submits sufficient information regarding each type of source or device pertinent to an evaluation of radiation safety, including:
      i. The radioactive material contained, its chemical and physical form, and amount;
      ii. Details of design and construction of the source or device;
      iii. Procedures for, and results of, prototype tests to demonstrate that the source or device will maintain its integrity under stresses likely to be encountered in normal use and accidents;
      iv. For devices containing radioactive material, the radiation profile of a prototype device;
      v. Details of quality control procedures to assure that production sources and devices meet the standards of the design and prototype tests;
      vi. Procedures and standards for calibrating sources and devices;
      vii. Legend and methods for labeling sources and devices as to their radioactive content;
      viii. Instruction for handling and storing the source or device from the radiation safety standpoint; these instructions are to be included on a durable label attached to the source or device or attached to a permanent storage container for the source or device; provided that instructions which are too lengthy for the label may be summarized on the label and printed in detail on a brochure which is referenced on the label;
   c. The label affixed to the source or device, or to the permanent storage container for the source or device, contains information on the radionuclide; quantity, the date of assay, and a statement that the (name of source or device) is licensed by the Agency for distribution to persons licensed under 12 A.A.C. 1, Article 7 or equivalent license of the U.S. Nuclear Regulatory Commission or an Agreement State or a Licensing State, provided that labeling for sources which do not require long term storage may be on a leaflet or brochure which accompanies the source.
2. In the event the applicant desires that the source or device undergo mandatory testing for leakage of radioactive material at intervals longer than 6 months, the application shall include sufficient information to demonstrate that the longer interval is justified by performance characteristics of the source or device or similar sources or devices and by design features that have a significant bearing on the probability or consequences of leakage of radioactive material from the source. In determining the acceptable interval for test of leakage of radioactive material, the Agency shall consider information that includes, but is not limited to:
   a. Primary containment (source capsule);
   b. Protection of primary containment;
   c. Method of sealing containment;
   d. Containment construction materials;
   e. Form of contained radioactive material;
   f. Maximum temperature withstood during prototype tests;
   g. Maximum pressure withstood during prototype tests;
   h. Maximum quantity of contained radioactive material;
   i. Radiotoxicity of contained radioactive material; and
   j. Operating experience with identical sources or devices or similarly designed and constructed sources or devices.

**M.** Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass volume applications.
1. The Agency shall approve an application for a specific license to manufacture industrial products and devices containing depleted uranium for use under R12-1-305(C) or equivalent regulations of the U.S. Nuclear Regulatory Commission or an Agreement State if:
   a. The applicant satisfies the general requirements in R12-1-309;
   b. The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling or marking, proposed uses, and potential hazards of the industrial product or device to provide reasonable assurance that possession, use, or transfer of the depleted uranium in the product or device is not likely to cause any indi-

vidual to receive a radiation dose in excess of 10 percent of the limits specified in R12-1-408.

c. The applicant submits sufficient information regarding the industrial product or device and the presence of depleted uranium for a mass volume application in the product or device to provide reasonable assurance that unique benefits will accrue to the public because of the usefulness of the product or device.

2. In the case of an industrial product or device whose unique benefits are questionable, the Agency shall approve an application for a specific license under this subsection only if the product or device is found to combine a high degree of utility and low probability of uncontrolled disposal and dispersal of significant quantities of depleted uranium into the environment.
3. The Agency may deny any application for a specific license under this subsection if the end use or uses of the industrial product or device cannot be reasonably foreseen.
4. Each person licensed under subsection (M)(1) shall:
   a. Maintain the level of quality control required by the license in the manufacture of the industrial product or device and the installation of the depleted uranium into the product or device;
   b. Label or mark each unit to:
      i. Identify the manufacturer of the product or device, the number of the license under which the product or device was manufactured, the fact that the product or device contains depleted uranium, and the quantity of depleted uranium in each product or device; and
      ii. State that the receipt, possession, use, and transfer of the product or device are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or an Agreement State;
   c. Assure that the depleted uranium, before being installed in each product or device, has been impressed with the following legend, clearly legible through any plating or other covering: "Depleted Uranium";
   d. Furnish a copy of the general license contained in R12-1-305(C) and a copy of ARRA-23 to each person to whom depleted uranium in a product or device is transferred for use under a general license contained in R12-1-305(C); or
   e. Furnish a copy of the general license contained in the U.S. Nuclear Regulatory Commission's or Agreement State's regulation equivalent to R12-1-305(C) and a copy of the U.S. Nuclear Regulatory Commission's or Agreement State's certificate, or alternatively, furnish a copy of the general license contained in R12-1-305(C) and a copy of ARRA-23 to each person to whom depleted uranium in a product or device is transferred for use under a general license of the U.S. Nuclear Regulatory Commission or an Agreement State, with a document explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or an Agreement State under requirements substantially the same as those in R12-1-305(C);
   f. Report to the Agency all transfers of industrial products or devices to persons for use under the general license in R12-1-305(C). The report shall identify each general licensee by name and address, an individual by name or position who serves as the point of contact person for the general licensee, the type and model number of device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within 30 days after the end of each calendar quarter in which a product or device is transferred to the generally licensed person. If no transfers have been made to persons generally licensed under R12-1-305(C) during the reporting period, the report shall so indicate;
      i. Report to the U.S. Nuclear Regulatory Commission all transfers of industrial products or devices to persons for use under the U.S. Nuclear Regulatory Commission general license in 10 CFR 40.25; or
      ii. Report to the responsible state agency all transfers of devices manufactured and distributed under subsection (M)(4)(f) for use under a general license in that state's regulations equivalent to R12-1-305(C);
      iii. The report required in subsection (M)(4)(f)(i) or (ii) shall identify each general licensee by name and address, an individual by name or position who serves as the contact person for the general licensee, the type and model number of the device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within 30 days after the end of each calendar quarter in which a product or device is transferred to the generally licensed person;
      iv. If no transfers have been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission;
      v. If no transfers have been made to general licensees within a particular Agreement State during the reporting period, this information shall be reported to the responsible Agreement state agency; and
      vi. Keep records showing the name, address, and contact person for each general licensee to whom depleted uranium in industrial products or devices is transferred for use under a general license provided in R12-1-305(C) or equivalent regulations of the U.S. Nuclear Regulatory Commission or of an Agreement State. The records shall be maintained for a period of 2 years and show the date of each transfer, the quantity of depleted uranium in each product or device transferred, and compliance with the reporting requirements of this Section.

**Historical Note**

Former Rule Section C.101. Former Section R12-1-311 repealed, new Section R12-1-311 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-311 renumbered to R12-1-312, new Section R12-1-311 renumbered from R12-1-310 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-311 renumbered to R12-1-310; new Section R12-1-311 renumbered from R12-1-312 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-312. Issuance of Specific Licenses**

**A.** Upon a determination that an application meets the requirements of the Act and the rules of the Agency, the Agency shall issue a specific license authorizing the proposed activity containing conditions and limitations as it deems appropriate or necessary.

**B.** The Agency may incorporate in any license at the time of issuance, or thereafter by appropriate rule, or order, additional requirements and conditions with respect to the licensee's receipt, possession, use, and transfer of radioactive material in order to:

1. Minimize danger to public health and safety or property;
2. Require reports and the recordkeeping, and to provide for inspections of activities under the license as may be appropriate or necessary; and
3. Prevent loss or theft of material subject to this Article.

**C.** The Agency may verify information contained in an application and secure additional information necessary to make a determination on issuance of a license and whether any special conditions should be attached to the license. The Agency may inspect the facility or location where radioactive materials would be possessed or used, and discuss details of the proposed possession or use of the radioactive materials with the applicant or representatives designated by the applicant.

**Historical Note**

Former Rule Section C.102; Former Section R12-1-312 repealed, new Section R12-1-312 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-312 renumbered to R12-1-313, new Section R12-1-312 renumbered from R12-1-311 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-312 renumbered to R12-1-311; new Section R12-1-312 renumbered from R12-1-313 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-313. Specific Terms and Conditions of Licenses**

**A.** Each license issued under this Article is subject to all provisions of A.R.S. Title 30, Chapter 4 and to all rules and orders of the Agency.

**B.** A licensee shall not transfer, assign, or in any manner dispose of a license issued or granted under this Article or a right to possess or utilize radioactive material granted by any license issued under this Article unless the Agency finds that the transfer is consistent with the Agency's statutes and rules, and gives its consent in writing.

**C.** Each person licensed by the Agency under this Article shall confine the use and possession of the material licensed to the locations and purposes authorized in the license.

**D.** Each person licensed under this Section shall notify the Agency in writing when the licensee decides to permanently discontinue any or all activities involving materials authorized under the license.

**E.** Each licensee shall notify the Agency, in writing:

1. Immediately following the filing of a petition for bankruptcy under any Chapter of Title 11 of the United States Code if the petition for bankruptcy is by or against:
   a. The licensee;
   b. An entity (as defined in the bankruptcy code) controlling the licensee or listing the license or licensee as property of the estate; or
   c. An affiliate (as defined in the bankruptcy code) of the licensee.
2. Providing the following information:
   a. The bankruptcy court in which the petition for bankruptcy was filed;
   b. The bankruptcy case title and number; and
   c. The date the petition was filed.

**Historical Note**

Former Rule Section C.103; Former Section R12-1-313 repealed, new Section R12-1-313 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended effective June 20, 1990 (Supp. 90-2). Former Section R12-1-313 renumbered to R12-1-314, new Section R12-1-313 renumbered from R12-1-312 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-313 renumbered to R12-1-312; new Section R12-1-313 renumbered from R12-1-314 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-314. Expiration of License**

Except as provided in R12-1-315(B), each specific license expires at the end of the day, in the month and year stated on the license.

**Historical Note**

Former Rule Section C.104; Former Section R12-1-314 repealed, new Section R12-1-314 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-314 renumbered to R12-1-315, new Section R12-1-314 renumbered from R12-1-313 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-314 renumbered to R12-1-313; new Section R12-1-314 renumbered from R12-1-315 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-315. Renewal of License**

**A.** An applicant shall file an application for renewal of a specific license according to R12-1-308.

**B.** In any case in which a licensee, not less than 30 days prior to expiration of the existing license, has filed an application in proper form for renewal or for a new license authorizing the same activities, the existing license does not expire until a final determination by the Agency.

**Historical Note**

Former Rule Section C.105; Former Section R12-1-315 repealed, new Section R12-1-315 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-315 renumbered to R12-1-316, new Section R12-1-315 renumbered from R12-1-314 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-315 renumbered to R12-1-314; new Section R12-1-315 renumbered from R12-1-316 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-316. Amendment of Licenses at Request of Licensee**

An applicant shall file an application for amendment of a specific license by complying with R12-1-308 and specifying the grounds for the amendment.

**Historical Note**

Former Rule Section C.106; Former Section R12-1-316 repealed, new Section R12-1-316 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-316 renumbered to R12-1-317, new Section R12-1-316 renumbered from R12-1-315 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-316 renumbered to R12-1-315; new Section R12-1-316 renumbered from R12-1-317 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-317. ARRA Action on Applications to Renew or Amend**

In considering an application by a licensee to renew or amend a specific license, the Agency shall apply the criteria set forth in R12-1-309, R12-1-310, or R12-1-311 as applicable.

**Historical Note**

Former Rule Section C.107; Former Section R12-1-317 repealed, new Section R12-1-317 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-317 renumbered to R12-1-318, new Section R12-1-317 renumbered from R12-1-316 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-317 renumbered to R12-1-316; new Section R12-1-317 renumbered from R12-1-318 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-318. Transfer of Radioactive Material**

**A.** A licensee shall not transfer radioactive material except as authorized under this Section.

**B.** Except as otherwise provided in the license and subject to the provisions of subsections (C) and (D), any licensee may transfer radioactive material:

1. To the Agency; after receiving prior approval from the Agency;
2. To the Department of Energy;
3. To any person exempt from the rules in this Article to the extent permitted under the exemption;
4. To any person authorized to receive radioactive material under terms of a general license or its equivalent, or a specific license or equivalent licensing document, issued by the Agency, the U.S. Nuclear Regulatory Commission, or any Agreement State or Licensing State, or to any person otherwise authorized to receive radioactive material by the Federal Government or any agency of the Federal Government, the Agency, any Agreement State or Licensing State; or
5. As otherwise authorized by the Agency in writing.

**C.** Before transferring radioactive material to a specific licensee of the Agency, the U.S. Nuclear Regulatory Commission, or an Agreement State or Licensing State, or to a general licensee who is required to register with the Agency, the U.S. Nuclear Regulatory Commission, or an Agreement State or Licensing State prior to receipt of the radioactive material, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred.

**D.** The transferor shall use 1 or more of the following methods for the verification required by subsection (C):

1. The transferor shall possess, and read, a current copy of the transferee's specific license or registration certificate;
2. The transferor shall possess a written certification by the transferee that the transferee is authorized by license or registration certificate to receive the type, form, and quantity of radioactive material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date;
3. For emergency shipments the transferor shall accept oral certification by the transferee that the transferee is authorized by license or registration certificate to receive the type, form, and quantity of radioactive material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date; provided the oral certification is confirmed in writing within 10 days;
4. The transferor shall obtain information equivalent to that in subsection (D)(1) to (3) compiled by a reporting service from official records of the Agency, the U.S. Nuclear Regulatory Commission, or the licensing agency of an Agreement State or Licensing State regarding the identity of any licensee and the scope and expiration date of any license, registration, or certificate; or
5. When none of the methods of verification described in subsections (D)(1) to (4) are readily available or when a transferor desires to verify that information received by 1 of the above methods is correct or up-to-date, the transferor shall obtain and record confirmation from the Agency, the U.S. Nuclear Regulatory Commission, or the licensing agency of an Agreement State or Licensing State that the transferee is licensed to receive the radioactive material.

**E.** A transferor shall prepare and transport radioactive material as prescribed in the provisions of 12 A.A.C. 1, Article 15.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-318 renumbered to R12-1-319, new Section R12-1-318 renumbered from R12-1-317 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-318 renumbered to R12-1-317; new Section R12-1-318 renumbered from R12-1-319 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-319. Modification, Revocation, and Termination of Licenses**

**A.** The terms and conditions of all licenses are subject to amendment, revision, or modification, and a license may be suspended or revoked by reason of amendments to the Agency's statutes or rules and orders issued by the Agency.

**B.** The Agency may revoke, suspend, or modify any license, in whole or in part, for any material false statement in the application; any omission or misstatement of fact required by statute, rule, or order, or because of conditions revealed by the application or any report, record, or inspection or other means that would cause the Agency to refuse to grant a license; or any violation of license terms and conditions, or the Agency's statutes, rules, or orders.

**C.** Except in cases of willfulness or those in which the public health, interest, or safety requires otherwise, the Agency shall not modify, suspend, or revoke a license unless, prior to the institution of proceedings, facts or conduct which may warrant such action have been called to the attention of the licensee in writing and the licensee has been accorded an opportunity to demonstrate or achieve compliance.

**D.** The Agency may terminate a specific license upon a written request by the licensee.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-319 renumbered to R12-1-320, new Section R12-1-319 renumbered from R12-1-318 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-319 renumbered to R12-1-318; new Section R12-1-319 renumbered from R12-1-320 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-320. Reciprocal Recognition of Licenses**

**A.** A general license is established by the Agency to perform specific licensed activities in Arizona for a period not to exceed

180 days in any calender year to any person who holds a specific license for activity involving the use of radioactive material from the U.S. Nuclear Regulatory Commission, Licensing State, or any Agreement State, issued by the agency with jurisdiction where the licensee maintains an office for directing the licensed activity and at which radiation safety records are normally maintained, provided that:

1. The license does not limit the activity to specified installations or locations;
2. The out-of-state licensee notifies the Agency in writing at least 3 days prior to engaging in the licensed activity. The notification shall indicate the location, period, and type of proposed possession and use within the State, and be accompanied by a copy of the pertinent licensing document. If, for a specific case, the 3-day period would impose an undue hardship on the out-of-state licensee, the licensee may, upon application to the Agency, obtain permission to proceed sooner. The Agency may waive the requirement for filing additional written notifications during the remainder of the calendar year, following receipt of the initial notification from a person engaging in activities under the general license provided in this Section;
3. The out-of-state licensee complies with all applicable statutes and rules of the Agency and with all the terms and conditions of the license, except those terms and conditions inconsistent with applicable statutes and rules of the Agency;
4. The out-of-state licensee supplies any other information the Agency requests; and
5. The out-of-state licensee does not transfer or dispose of radioactive material possessed or used under the general license provided in this Section except by transfer to a person:
   a. Specifically licensed by the Agency, or by the U.S. Nuclear Regulatory Commission to receive the radioactive material; or
   b. Exempt under R12-1-303(A).

**B.** Notwithstanding the provisions of subsection (A)(1), a general license is established by the Agency to manufacture, install, transfer, demonstrate, or service a device described in R12-1-306(B)(1) to any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission, Licensing State, or an Agreement State authorizing the same activities within areas subject to the jurisdiction of the licensing body, provided that:

1. The person files a report with the Agency within 30 days after the end of each calendar quarter in which any device is transferred to or installed in this State. Each report shall identify the general licensee to whom the device is transferred by name and address, the type of device transferred, and the quantity and type of radioactive material contained in the device;
2. The device has been manufactured, labeled, installed, and serviced according to the applicable provisions of the specific license issued to the person by the U.S. Nuclear Regulatory Commission or an Agreement State;
3. The person entering the state ensures that any labels required to be affixed to the device under rules of the authority which licensed manufacture of the device bear the following statement: "Removal of this label is prohibited"; and
4. The holder of the specific license furnishes a copy of the general license contained in R12-1-306(B), or equivalent rules of the agency having jurisdiction over the manufacture or distribution of the device, to each general licensee to whom the licensee transfers the device or on whose premises the device is installed.

**C.** The Agency may withdraw, limit, or qualify the acceptance of any specific license or equivalent licensing document issued by another agency, or any product distributed under a license, upon determining that an action is necessary to prevent undue hazard to public health and safety, or property.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-320 renumbered to R12-1-321, new Section R12-1-320 renumbered from R12-1-319 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-320 renumbered to R12-1-319; new Section R12-1-320 renumbered from R12-1-321 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-321. Preparation of Radioactive Material for Transport**

A licensee shall not deliver any radioactive material to a carrier for transport, unless the licensee complies with the provisions of 12 A.A.C. 1, Article 15.

**Historical Note**

Former Rule Section C.201; Former Section R12-1-321 repealed, new Section R12-1-321 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-321 renumbered to R12-1-322, new Section R12-1-321 renumbered from R12-1-320 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-321 renumbered to R12-1-320; new Section R12-1-321 renumbered from R12-1-322 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-322. The Need for an Emergency Plan for Response to a Release of Radioactive Material**

**A.** For purposes of this rule, "Emergency Plan" means a procedure that will be followed when an accident occurs involving licensed radioactive materials for which an offsite response may be needed from organizations, such as police, fire, or medical organizations.

**B.** Each application to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in Exhibit D, "Radioactive Material Quantities Requiring Consideration for an Emergency Plan" shall contain either:

1. An evaluation showing that the maximum dose to a person off-site due to a release of radioactive materials would not exceed 1 rem effective dose equivalent or 5 rems to the thyroid; or
2. An emergency plan for responding to a release of radioactive material.

**C.** One or more of the following factors may be used to support an evaluation submitted under subsection (B)(1):

1. The radioactive material is physically separated so that only a portion could be involved in an accident.
2. All or part of the radioactive material is not subject to release during an accident because of the way it is stored or packaged;
3. The release fraction in the respirable size range would be lower than the release fraction shown in Exhibit D due to the chemical or physical form of the material;
4. The solubility of the radioactive material would reduce the dose received;

5. Facility design or engineered safety features in the facility would cause the release fraction to be lower than shown in Exhibit D;
6. Operating restrictions or procedures would prevent a release fraction as large as that shown in Exhibit D; or
7. Other factors appropriate for the specific facility.

**D.** An emergency plan for responding to a release of radioactive material submitted under subsection (B)(2) shall include the following information:

1. A brief description of the licensee's facility and areas near the site that could expose a member of the public to a dose equal to or greater than the levels expressed in subsection (B)(1).
2. An identification of each type of radioactive materials accident for which protective actions may be needed.
3. A classification system for classifying accidents as alerts or site area emergencies.
4. Identification of the means of detecting each type of accident in a timely manner.
5. A brief description of the means and equipment for mitigating the consequences of each type of accident, including those provided to protect workers on-site, and a description of the program for maintaining the equipment.
6. A brief description of the methods and equipment to assess releases of radioactive materials.
7. A brief description of the responsibilities of licensee personnel responsible for promptly notifying offsite response organizations and the Agency; also responsibilities for developing, maintaining, and updating the plan.
8. A commitment to and a brief description of the means to promptly notify offsite response organizations and request off-site assistance, including medical assistance for the treatment of contaminated and injured on-site workers when appropriate. A control point shall be established. The notification and coordination shall be planned so that unavailability of some personnel, parts of the facility, and some equipment will not prevent the notification and coordination. The licensee shall also commit to notify the Agency immediately after notification of the appropriate off-site response organizations and not later than 1 hour after the licensee declares an emergency.
9. A brief description of the types of information on facility status, radioactive releases, and recommended protective actions, if necessary, to be given to off-site response organizations and to the Agency.
10. A brief description of the frequency, performance objectives, and plans for the training that the licensee will provide workers on how to respond to an emergency including any special instructions and orientation tours the licensee would offer to fire, police, medical, and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site, including the use of team training for such scenarios.
11. A brief description of the means of restoring the facility to a safe condition after an accident.
12. Provisions for conducting quarterly communications checks with off-site response organizations and biennial on-site exercises to test response to simulated emergencies. Quarterly communications checks with off-site response organizations shall include the verifying and updating of all necessary telephone numbers. The licensee shall invite off-site response organizations to participate in the biennial exercises. Their participation is not required. Exercises shall use accident scenarios postulated as most probable for the specific site and the scenarios shall not be known to most exercise participants. The licensee shall critique each exercise, using individuals without direct implementation responsibility for the plan. Critiques of exercises shall evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques shall be corrected.
13. A certification that the applicant has met its responsibilities in A.R.S. §§ 26-341 through 26-353 (emergency Planning and Community Right-to-Know Act of 1986), if applicable to the applicant's activities at the proposed place of use of the radioactive material.

**E.** The licensee shall allow 60 days for the off-site response organizations, expected to respond in case of an accident, to comment on the licensee's emergency plan before submitting it to the Agency. The licensee shall provide any comments received within the 60 days to the Agency with the emergency plan.

**Historical Note**

Former Section R12-1-322 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-322 renumbered from R12-1-321 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-322 renumbered to R12-1-321; new Section R12-1-322 renumbered from R12-1-323 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-323. Financial Assurance and Record Keeping for Decommissioning**

**A.** For purposes of this rule:

1. "Decommissioning" means to remove a radioactive material use facility safely from service and to reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the radioactive material use license.
2. "Byproduct material" as used in 10 CFR 30, means "radioactive material" which is defined in A.R.S. § 30-651.
3. "Facility" means the entire site of radioactive material use, or any separate building or outdoor area where it is used.
4. "Appendix B to Part 30" as used in 10 CFR 30, means Appendix E in 12 A.A.C. 1, Article 4.
5. "Financial security" means having a net worth of not less than $10,000.

**B.** When applying, each nongovernment applicant for a specific license authorizing the possession and use of radioactive material, and each nongovernment holder of a license to possess and use radioactive material issued before the effective date of this rule, shall submit to the Agency certification of financial security, as required in A.R.S. § 30-672(H).

1. Each affected licensee shall submit certification of financial security no later than 3 months following the effective date of this rule.
2. Licensees required to meet the requirements in subsection (C) are exempt from the requirements in this subsection.

**C.** When applying, each applicant for a specific license authorizing the possession and use of radioactive material, and each holder of a license to possess and use radioactive material issued before the effective date of this rule, shall submit to the Agency a decommissioning funding plan or certification of financial assurance meeting the requirements in 10 CFR 30.35

or 40.36, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of Secretary of State. This incorporation by reference contains no future editions or amendments. Each affected licensee shall submit the plan or certification no later than 6 months following the effective date of this rule.

**D.** Each licensee required to provide financial assurance for decommissioning a radioactive material facility under this rule shall maintain records of information important to the safe and effective decommissioning of the facility in an identified location until the license is terminated by the Agency. The licensee shall maintain the following records during the decommissioning process:

1. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, and site. The licensee shall keep records identifying the involved radionuclides and associated quantities, forms, and concentrations.
2. As-built drawings showing modifications of structures and equipment in restricted areas where radioactive materials are used and stored, and locations of possible inaccessible contamination. If drawings are not available, the licensee shall provide appropriate records describing each location of possible contamination.
3. Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

**E.** Decommissioning procedures:

1. Upon expiration or termination of licensed activities, a licensee shall begin decommissioning its facility within 60 days of notifying the Agency of the decision to discontinue licensed activities, or within 12 months of the decision, submit to the Agency a decommissioning plan, as prescribed in 10 CFR 30.36(g)(1), 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of Secretary of State, containing no future editions or amendments, and begin decommissioning upon approval of the plan if the license has expired or no licensed activities have been conducted at the licensee's facility for a period of 24 months.
2. In addition to the notification requirements in subsection (E)(1), the licensee shall maintain in effect all decommissioning financial assurances required by this Section. The financial assurances shall be increased or may be decreased as appropriate to cover the cost estimate established for decommissioning in subsection (E)(1).
   a. Any licensee who has not provided financial assurance to cover decommissioning shall do so 1 year from the effective date of this rule.
   b. The licensee may reduce the amount of the financial assurance following approval of the decommissioning plan, provided the radiological hazard is decreasing and the licensee has the approval of the Agency.
3. The Agency shall extend the time periods established in subsection (E)(1) if a new time period is in the best interest of public health and safety.
   a. The licensee shall submit the request for the change no later than 30 days before the notification time frame specified in subsection (E)(1).
   b. If appropriate, the schedule for decommissioning activities, specified in subsection (E)(1), shall not commence until the Agency has made a determination on the request described in subsection (E)(3)(a).
4. Except as provided in subsection (E)(5), the licensee shall complete decommissioning of a facility as soon as practicable but no later than 24 months following the initiation of decommissioning; and except as provided in subsection (E)(5), when decommissioning involves the entire facility, the licensee shall request license termination as soon as practicable but no later than 24 months following initiation of decommissioning.
5. The Agency shall approve a request for an alternate schedule for completion of decommissioning and license termination if the Agency determines that the alternative is warranted by consideration of the conditions specified in 10 CFR, 30.36(i), 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of Secretary of State, containing no future editions or amendments.
6. As a final step in decommissioning, the licensee shall meet the requirements specified in 10 CFR Part 30.36(j), 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of Secretary of State, containing no future editions or amendments.

**Historical Note**
Former Section R12-1-323 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-323 adopted effective February 18, 1994 (Supp. 94-1). Former Section R12-1-323 renumbered to R12-1-322; new Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-324. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-325. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-326. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-327. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-328. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-329. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-330. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-331. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-332. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-333. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-334. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-335. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-336. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-337. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-338. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-339. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-340. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-341. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-342. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-343. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-344. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-345. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-346. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-347. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**R12-1-348. Repealed**

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3).

**Exhibit A**
**Exempt Concentrations**

| Element (atomic number) | Isotope | Column I Gas Concentration ($\mu$Ci/ml)[1]/ | Column II Liquid and Solid Concentration ($\mu$Ci/ml)[2]/ |
|---|---|---|---|
| Antimony (51) | Sb-122 | | $3X10^{-4}$ |
| | Sb-124 | | $2X10^{-4}$ |
| | Sb-125 | | $1X10^{-3}$ |
| Argon (18) | Ar-37 | $1X10^{-3}$ | |
| | Ar-41 | $4X10^{-7}$ | |
| Arsenic (33) | As-73 | | $5X10^{-3}$ |
| | As-74 | | $5X10^{-4}$ |
| | As-76 | | $2X10^{-4}$ |
| | As-77 | | $8X10^{-4}$ |
| Barium (56) | Ba-131 | | $2X10^{-3}$ |
| | Ba-140 | | $3X10^{-4}$ |
| Beryllium (4) | Be-7 | | $2X10^{-2}$ |
| Bismuth (83) | Bi-206 | | $4X10^{-4}$ |
| Bromine (35) | Br-82 | $4X10^{-7}$ | $3X10^{-3}$ |
| Cadmium (48) | Cd-109 | | $2X10^{-3}$ |
| | Cd-115m | | $3X10^{-4}$ |
| | Cd-115 | | $3X10^{-4}$ |
| Calcium (20) | Ca-45 | | $9X10^{-5}$ |
| | Ca-47 | | $5X10^{-4}$ |
| Carbon (6) | C-14 | $1X10^{-6}$ | $8X10^{-3}$ |
| Cerium (58) | Ce-141 | | $9X10^{-4}$ |
| | Ce-143 | | $4X10^{-4}$ |
| | Ce-144 | | $1X10^{-4}$ |
| Cesium (55) | Cs-131 | | $2X10^{-2}$ |
| | Cs-134m | | $6X10^{-2}$ |
| | Cs-134 | | $9X10^{-5}$ |
| Chlorine (17) | Cl-38 | $9X10^{-7}$ | $4X10^{-3}$ |
| Chromium (24) | Cr-51 | | $2X10^{-2}$ |
| Cobalt (27) | Co-57 | | $5X10^{-3}$ |
| | Co-58 | | $1X10^{-3}$ |
| | Co-60 | | $5X10^{-4}$ |
| Copper (29) | Cu-64 | | $3X10^{-3}$ |
| Dysprosium (66) | Dy-165 | | $4X10^{-3}$ |
| | Dy-166 | | $4X10^{-4}$ |
| Erbium (68) | Er-169 | | $9X10^{-4}$ |
| | Er-171 | | $1X10^{-3}$ |
| Europium (63) | Eu-152 ($T_r$=9.2 h) | | $6X10^{-4}$ |
| | Eu-155 | | $2X10^{-3}$ |
| Fluorine (9) | F-18 | $2X10^{-6}$ | $8X10^{-3}$ |
| Gadolinium (64) | Gd-153 | | $2X10^{-3}$ |
| | Gd-159 | | $8X10^{-4}$ |
| Gallium (31) | Ga-72 | | $4X10^{-4}$ |
| Germanium (32) | Ge-71 | | $2X10^{-2}$ |
| Gold (79) | Au-196 | | $2X10^{-3}$ |
| | Au-198 | | $5X10^{-4}$ |
| | Au-199 | | $2X10^{-3}$ |

| | | | |
|---|---|---|---|
| Hafnium (72) | Hf-181 | | $7X10^{-4}$ |
| Hydrogen (1) | H-3 | $5X10^{-6}$ | $3X10^{-2}$ |
| Indium (49) | In-113m | | $1X10^{-2}$ |
| | In-114m | | $2X10^{-4}$ |
| Iodine | I-126 | $3X10^{-9}$ | $2X10^{-5}$ |
| | I-131 | $3X10^{-9}$ | $2X10^{-5}$ |
| | I-132 | $8X10^{-8}$ | $6X10^{-4}$ |
| | I-133 | $1X10^{-8}$ | $7X10^{-5}$ |
| | I-134 | $2X10^{-7}$ | $1X10^{-3}$ |
| Iridium (77) | Ir-190 | | $2X10^{-3}$ |
| | Ir-192 | | $4X10^{-4}$ |
| | Ir-194 | | $3X10^{-4}$ |
| Iron (26) | Fe-55 | | $8X10^{-3}$ |
| | Fe-59 | | $6X10^{-4}$ |
| Krypton (36) | Kr-85m | $1X10^{-6}$ | |
| | Kr-85 | $3X10^{-6}$ | |
| Lanthanum (57) | La-140 | | $2X10^{-4}$ |
| Lead (82) | Pb-203 | | $4X10^{-3}$ |
| Lutetium (71) | Lu-177 | | $1X10^{-3}$ |
| Manganese (25) | Mn-52 | | $3X10^{-4}$ |
| | Mn-54 | | $1X10^{-3}$ |
| | Mn-56 | | $1X10^{-3}$ |
| Mercury (80) | Hg-197m | | $2X10^{-3}$ |
| | Hg-197 | | $3X10^{-3}$ |
| | Hg-203 | | $2X10^{-4}$ |
| Molybdenum (42) | Mo-99 | | $2X10^{-3}$ |
| Neodymium (60) | Nd-147 | | $6X10^{-4}$ |
| | Nd-149 | | $3X10^{-3}$ |
| Nickel (28) | Ni-65 | | $1X10^{-3}$ |
| Niobium (Columbium) (41) | Nb-95 | | $1X10^{-3}$ |
| | Nb-97 | | $9X10^{-3}$ |
| Osmium (76) | Os-185 | | $7X10^{-4}$ |
| | Os-191m | | $3X10^{-2}$ |
| | Os-191 | | $2X10^{-3}$ |
| | Os-193 | | $6X10^{-4}$ |
| Palladium (46) | Pd-103 | | $3X10^{-3}$ |
| | Pd-109 | | $9X10^{-4}$ |
| Phosphorus (15) | P-32 | | $2X10^{-4}$ |
| Platinum (78) | Pt-191 | | $1X10^{-3}$ |
| | Pt-193m | | $1X10^{-2}$ |
| | Pt-197m | | $1X10^{-2}$ |
| | Pt-197 | | $1X10^{-3}$ |
| Potassium (19) | K-42 | | $3X10^{-3}$ |
| Praseodymium (59) | Pr-142 | | $3X10^{-4}$ |
| | Pr-143 | | $5X10^{-4}$ |
| Promethium (61) | Pm-147 | | $2X10^{-3}$ |
| | Pm-149 | | $4X10^{-4}$ |
| Rhenium (75) | Re-183 | | $6X10^{-3}$ |
| | Re-186 | | $9X10^{-4}$ |
| | Re-188 | | $6X10^{-4}$ |
| Rhodium (45) | Rh-103m | | $1X10^{-1}$ |
| | Rh-105 | | $1X10^{-3}$ |
| Rubidium (37) | Rb-86 | | $7X10^{-4}$ |

| | | | |
|---|---|---|---|
| Ruthenium (44) | Ru-97 | | $4X10^{-3}$ |
| | Ru-103 | | $8X10^{-4}$ |
| | Ru-105 | | $1X10^{-3}$ |
| | Ru-106 | | $1X10^{-4}$ |
| Samarium (62) | Sm-153 | | $8X10^{-4}$ |
| Scandium (21) | Sc-46 | | $4X10^{-4}$ |
| | Sc-47 | | $9X10^{-4}$ |
| | Sc-48 | | $3X10^{-4}$ |
| Selenium (34) | Se-75 | | $3X10^{-3}$ |
| Silicon (14) | Si-31 | | $9X10^{-3}$ |
| Silver (47) | Ag-105 | | $1X10^{-3}$ |
| | Ag-110m | | $3X10^{-4}$ |
| | Ag-111 | | $4X10^{-4}$ |
| Sodium (11) | Na-24 | | $2X10^{-3}$ |
| Strontium (38) | Sr-85 | | $1X10^{-3}$ |
| | Sr-89 | | $1X10^{-4}$ |
| | Sr-91 | | $7X10^{-4}$ |
| | Sr-92 | | $7X10^{-4}$ |
| Sulfur (16) | S-35 | $9X10^{-8}$ | $6X10^{-4}$ |
| Tantalum (73) | Ta-182 | | $4X10^{-4}$ |
| Technetium (43) | Tc-96m | | $1X10^{-1}$ |
| | Tc-96 | | $1X10^{-3}$ |
| Tellurium (52) | Te-125m | | $2X10^{-3}$ |
| | Te-127m | | $6X10^{-4}$ |
| | Te-127 | | $3X10^{-3}$ |
| | Te-129m | | $3X10^{-4}$ |
| | Te-131m | | $6X10^{-4}$ |
| | Te-132 | | $3X10^{-4}$ |
| Terbium (65) | Tb-160 | | $4X10^{-4}$ |
| Thallium (81) | Tl-200 | | $4X10^{-3}$ |
| | Tl-201 | | $3X10^{-3}$ |
| | Tl-202 | | $1X10^{-3}$ |
| | Tl-204 | | $1X10^{-3}$ |
| Thulium (69) | Tm-170 | | $5X10^{-4}$ |
| | Tm-171 | | $5X10^{-3}$ |
| Tin (50) | Sn-113 | | $9X10^{-4}$ |
| | Sn-125 | | $2X10^{-4}$ |
| Tungsten (Wolfram) (74) | W-181 | | $4X10^{-3}$ |
| | W-187 | | $7X10^{-4}$ |
| Vanadium (23) | V-48 | | $3X10^{-4}$ |
| Xenon (54) | Xe-131m | $4X10^{-6}$ | |
| | Xe-133 | $3X10^{-6}$ | |
| | Xe-135 | $1X10^{-6}$ | |
| Ytterbium (70) | Yb-175 | | $1X10^{-3}$ |
| Yttrium (39) | Y-90 | | $2X10^{-4}$ |
| | Y-91m | | $3X10^{-2}$ |
| | Y-91 | | $3X10^{-4}$ |
| | Y-92 | | $6X10^{-4}$ |
| | Y-93 | | $3X10^{-4}$ |
| Zinc (30) | Zn-65 | | $1X10^{-3}$ |
| | Zn-69m | | $7X10^{-4}$ |
| | Zn-69 | | $2X10^{-2}$ |
| Zirconium (40) | Zr-95 | | $6X10^{-4}$ |

| | | |
|---|---|---|
| Zr-97 (See notes at end of appendix-) | | $2X10^{-4}$ |
| Beta and/or gamma emitting radioactive material not listed above with half-life less than 3 years | $1X10^{-10}$ | $1X10^{-6}$ |

NOTE 1: Many radioisotopes disintegrate into isotopes which are also radioactive. In expressing the concentrations in Schedule A the activity stated is that of the parent isotope and takes into account the daughters.

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1/ Values are given in Column I only for those materials normally used as gases

2/ μCi/gm are for solids

NOTE 2: For purposes of Section 303 where there is involved a combination of isotopes, the limit for the combination should be derived as follows: Determine for each isotope in the product the ratio between the concentration present in the product and the exempt concentration established in Schedule A for the specific isotope when not in combination. The sum of such ratios may not exceed "1" (i.e., unity).
EXAMPLE:

$$\frac{\text{Concentration of Isotope A in Product}}{\text{Exempt concentration of Isotope A}} + \frac{\text{Concentration of Isotope B in Product}}{\text{Exempt concentration of Isotope B}} \leq 1$$

**Historical Note**

Appendix A repealed, Schedule A adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Exhibit B**
**Exempt Quantities**

| Material | Microcuries | Material | Microcuries |
|---|---|---|---|
| Antimony-122 (Sb-122) | 100 | Dysprosium-166 (Dy-166) | 100 |
| Antimony-124 (Sb-124) | 10 | Erbium-169 (Er-169) | 100 |
| Antimony-125 (Sb-125) | 10 | Erbium-171 (Er-171) | 100 |
| Arsenic-73 (As-73) | 100 | Europium-152 (Eu-152) (9.2 h) | 100 |
| Arsenic-74 (As-74) | 10 | Europium-152 (Eu-152) (13 yr) | 1 |
| Arsenic-76 (As-76) | 10 | Europium-154 (Eu-154) | 1 |
| Arsenic-77 (As-77) | 100 | Europium-155 (Eu-155) | 10 |
| Barium-131 (Ba-131) | 10 | Fluorine-18 (F-18) | 1,000 |
| Barium-133 (Ba-133) | 10 | Gadolinium-153 (Gd-153) | 10 |
| Barium-140 (Ba-140) | 10 | Gadolinium-159 (Gd-159) | 100 |
| Bismuth-210 (Bi-210) | 1 | Gallium-67 (Ga-67) | 100 |
| Bromine-82 (Br-82) | 10 | Gallium-72 (Ga-72) | 10 |
| Cadmium-109 (Cd-109) | 10 | Germanium-71 (Ge-71) | 100 |
| Cadmium-115m (Cd-115m) | 10 | Gold-195 (Au-195) | 10 |
| Cadmium-115 (Cd-115) | 100 | Gold-198 (Au-198) | 100 |
| Calcium-45 (Ca-45) | 10 | Gold-199 (Au-199) | 100 |
| Calcium-47 (Ca-47) | 10 | Hafnium-181 (Hf-181) | 10 |
| Carbon-14 (C-14) | 100 | Holmium-166 (Ho-166) | 100 |
| Cerium-141 (Ce-141) | 100 | Hydrogen-3 (H-3) | 1,000 |
| Cerium-143 (Ce-143) | 100 | Indium-113m (In-113m) | 100 |
| Cerium-144 (Ce-144) | 1 | Indium-114m (In-114m) | 10 |
| Cesium-129 (Cs-129) | 100 | Indium-115m (In-115m) | 100 |
| Cesium-131 (Cs-131) | 1,000 | Indium-115 (In-115) | 10 |
| Cesium-134m (Cs-134m) | 100 | Iodine-123 (I-123) | 100 |
| Cesium-134 (Cs-134) | 1 | Iodine-125 (I-125) | 1 |
| Cesium-135 (Cs-135) | 10 | Iodine-126 (I-126) | 1 |
| Cesium-136 (Cs-136) | 10 | Iodine-129 (I-129) | 0.1 |
| Cesium-137 (Cs-137) | 10 | Iodine-131 (I-131) | 1 |
| Chlorine-36 (Cl-36) | 10 | Iodine-132 (I-132) | 10 |
| Chlorine-38 (Cl-38) | 10 | Iodine-133 (I-133) | 1 |
| Chromium-51 (Cr-51) | 1,000 | Iodine-134 (I-134) | 10 |
| Cobalt-57 (Co-57) | 100 | Iodine-135 (I-135) | 10 |
| Cobalt-58m (Co-58m) | 10 | Iridium-192 (Ir-192) | 10 |
| Cobalt-58 (Co-58) | 10 | Iridium-194 (Ir-194) | 100 |
| Cobalt-60 (Co-60) | 1 | Iron-52 (Fe-52) | 10 |
| Copper-64 (Cu-64) | 100 | Iron-55 (Fe-55) | 100 |
| Dysprosium-165 (Dy-165) | 10 | Iron-59 (Fe-59) | 10 |

| Material | Microcuries |
|---|---|
| Krypton-85 (Kr-85) | 100 |
| Krypton-87 (Kr-87) | 10 |
| Lanthanum-140 (La-140) | 10 |
| Lutetium-177 (Lu-177) | 100 |
| Manganese-52 (Mn-52) | 10 |
| Manganese-54 (Mn-54) | 10 |
| Manganese-56 (Mn-56) | 10 |
| Mercury-197m (Hg-197m) | 100 |
| Mercury-197 (Hg-197) | 100 |
| Mercury-203 (Hg-203) | 10 |
| Molybdenum-99 (Mo-99) | 100 |
| Neodymium-147 (Nd-147) | 100 |
| Neodymium-149 (Nd-149) | 100 |
| Nickel-59 (Ni-59) | 100 |
| Nickel-63 (Ni-63) | 10 |
| Nickel-65 (Ni-65) | 100 |
| Niobium-93m (Nb-93m) | 10 |
| Niobium-95 (Nb-95) | 10 |
| Niobium-97 (Nb-97) | 10 |
| Osmium-185 (Os-185) | 10 |
| Osmium-191m (Os-191m) | 100 |
| Osmium-191(Os-191) | 100 |
| Osmium-193 (Os-193) | 100 |
| Palladium-103 (Pd-103) | 100 |
| Palladium-109 (Pd-109) | 100 |
| Phosphorus-32 (P-32) | 10 |
| Platinum-191 (Pt-191) | 100 |
| Platinum-193m (Pt-193m) | 100 |
| Platinum-193 (Pt-193) | 100 |
| Platinum-197m (Pt-197m) | 100 |
| Platinum-197 (Pt-197) | 100 |
| Polonium-210 (Po-210) | 0.1 |
| Potassium-42 (K-42) | 10 |
| Potassium-43 (K-43) | 10 |
| Praseodymium-142 (Pr-142) | 100 |
| Praseodymium-143 (Pr-143) | 100 |
| Promethium-147 (Pm-147) | 10 |
| Promethium-149 (Pm-149) | 10 |
| Rhenium-186 (Re-186) | 100 |
| Rhenium-188 (Re-188) | 100 |
| Rhodium-103m (Rh-103m) | 100 |
| Rhodium-105 (Rh-105) | 100 |
| Rubidium-81 (Rb-81) | 10 |
| Rubidium-86 (Rb-86) | 10 |
| Rubidium-87 (Rb-87) | 10 |
| Ruthenium-97 (Ru-97) | 100 |
| Ruthenium-103 (Ru-103) | 10 |
| Ruthenium-105 (Ru-105) | 10 |
| Ruthenium-106 (Ru-106) | 1 |
| Samarium-151 (Sm-151) | 10 |
| Samarium-153 (Sm-153) | 100 |
| Scandium-46 (Sc-46) | 10 |
| Scandium-47 (Sc-47) | 100 |
| Scandium-48 (Sc-48) | 10 |
| Selenium-75 (Se-75) | 10 |
| Silicon-31 (Si-31) | 100 |
| Silver-105 (Ag-105) | 10 |
| Silver-110m (Ag-110m) | 1 |
| Silver-111 (Ag-111) | 100 |
| Sodium-22 (Na-22) | 10 |
| Sodium-24 (Na-24) | 10 |
| Strontium-85 (Sr-85) | 10 |
| Strontium-89 (Sr-89) | 1 |
| Strontium-90 (Sr-90) | 0.1 |
| Strontium-91 (Sr-91) | 10 |
| Strontium-92 (Sr-92) | 10 |
| Sulfur-35 (S-35) | 100 |
| Tantalum-182 (Ta-182) | 10 |
| Technetium-96 (Tc-96) | 10 |
| Technetium-97m (Tc-97m) | 100 |
| Technetium-97 (Tc-97) | 100 |
| Technetium-99m (Tc-99m) | 100 |
| Technetium-99 (Tc-99) | 10 |
| Tellurium-125m (Te-125m) | 10 |
| Tellurium-127m (Te-127m) | 10 |
| Tellurium-127 (Te-127) | 100 |
| Tellurium-129m (Te-129m) | 10 |
| Tellurium-129 (Te-129) | 100 |
| Tellurium-131m (Te-131m) | 10 |
| Tellurium-132 (Te-132) | 10 |
| Terbium-160 (Tb-160) | 10 |
| Thallium-200 (Tl-200) | 100 |
| Thallium-201 (Tl-201) | 100 |
| Thallium-202 (Tl-202) | 100 |
| Thallium-204 (Tl-204) | 10 |
| Thulium-170 (Tm-170) | 10 |
| Thulium-171 (Tm-171) | 10 |
| Tin-113 (Sn-113) | 10 |
| Tin-125 (Sn-125) | 10 |
| Tungsten-181 (W-181) | 10 |
| Tungsten-185 (W-185) | 10 |
| Tungsten-187 (W-187) | 100 |
| Vanadium-43 (V-48) | 10 |
| Xenon-131m (Xe-131m) | 1,000 |
| Xenon-133 (Xe-133) | 100 |
| Xenon-135 (Xe-135) | 100 |
| Ytterbium-175 (Yb-175) | 100 |
| Yttrium-87 (Y-87) | 10 |
| Yttrium-88 (Y-88) | 10 |
| Yttrium-90 (Y-90) | 10 |
| Yttrium-91 (Y-91) | 10 |
| Yttrium-92 (Y-92) | 100 |
| Yttrium-93 (Y-93) | 100 |
| Zinc-65 (Zn-65) | 10 |
| Zinc-69m (Zn-69m) | 100 |
| Zinc-69 (Zn-69) | 1,000 |
| Zirconium-93 (Zr-93) | 10 |
| Zirconium-95 (Zr-95) | 10 |
| Zirconium-97 (Zr-97) | 10 |
| Any radionuclide material not listed above other than alpha-emitting radioactive material | 0.1 |

**Historical Note**
Adopted effective June 30. 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Exhibit C**

**Limits for Class B and C Broad Scope Licenses (R12-1-310)**

| Radioactive Material | Col. I curies | Col. II curies | Radioactive Material | Col. I curies | Col. II curies |
|---|---|---|---|---|---|
| Antimony-122 | 1 | 0.01 | Iodine-126 | 0.1 | 0.001 |
| Antimony-124 | 1 | 0.01 | Iodine-129 | 0.1 | 0.001 |
| Antimony-125 | 1 | 0.01 | Iodine-131 | 0.1 | 0.001 |
| Arsenic-73 | 10 | 0.1 | Iodine-132 | 10 | 0.1 |
| Arsenic-74 | 1 | 0.01 | Iodine-133 | 1 | 0.1 |
| Arsenic-76 | 1 | 0.01 | Iodine-134 | 10 | 0.1 |
| Arsenic-77 | 10 | 0.1 | Iodine-135 | 1 | 0.1 |
| Barium-131 | 10 | 0.1 | Iridium-192 | 1 | 0.1 |
| Barium-140 | 1 | 0.01 | Iridium-194 | 10 | 0.1 |
| Beryllium-7 | 10 | 0.1 | Iron-55 | 10 | 0.1 |
| Bismuth-210 | 0.1 | 0.001 | Iron-59 | 1 | 0.1 |
| Bromine-82 | 10 | 0.1 | Krypton-85 | 100 | 1. |
| Cadmium-109 | 1 | 0.01 | Krypton-87 | 10 | 0.1 |
| Cadmium-115m | 1 | 0.01 | Lanthanum-140 | 1 | 0.1 |
| Cadmium-115 | 10 | 0.1 | Lutetium-177 | 10 | 0.1 |
| Calcium-45 | 1 | 0.01 | Manganese-52 | 1 | 0.1 |
| Calcium-47 | 10 | 0.1 | Manganese-54 | 1 | 0.1 |
| Carbon-14 | 100 | 1. | Manganese-56 | 10 | 0.1 |
| Cerium-141 | 10 | 0.1 | Mercury-197m | 10 | 0.1 |
| Cerium-143 | 10 | 0.1 | Mercury-197 | 10 | 0.1 |
| Cerium-144 | 0.1 | 0.001 | Mercury-203 | 1 | 0.1 |
| Cesium-131 | 100 | 1. | Molybdenum-99 | 10 | 0.1 |
| Cesium-134m | 100 | 1. | Neodymium-147 | 10 | 0.1 |
| Cesium-134 | 0.1 | 0.001 | Neodymium-149 | 10 | 0.1 |
| Cesium-135 | 1 | 0.01 | Nickel-59 | 10 | 0.1 |
| Cesium-136 | 10 | 0.1 | Nickel-63 | 1 | 0.1 |
| Cesium-137 | 0.1 | 0.001 | Nickel-65 | 10 | 0.1 |
| Chlorine-36 | 1 | 0.01 | Niobium-93m | 1 | 0.1 |
| Chlorine-38 | 100 | 1. | Niobium-95 | 1 | 0.1 |
| Chromium-51 | 100 | 1. | Niobium-97 | 100 | 1. |
| Cobalt-57 | 10 | 0.1 | Osmium-185 | 1 | 0.1 |
| Cobalt-58m | 100 | 1. | Osmium-191m | 100 | 1. |
| Cobalt-58 | 1 | 0.01 | Osmium-191 | 10 | 0.1 |
| Cobalt-60 | 0.1 | 0.001 | Osmium-193 | 10 | 0.1 |
| Copper-64 | 10 | 0.1 | Palladium-103 | 10 | 0.1 |
| Dysprosium-165 | 100 | 1. | Palladium-109 | 10 | 0.1 |
| Dysprosium-166 | 10 | 0.1 | Phosphorus-32 | 1 | 0.01 |
| Erbium-169 | 10 | 0.1 | Platinum-191 | 10 | 0.1 |
| Erbium-171 | 10 | 0.1 | Platinum-193m | 100 | 1. |
| Europium-152 (9.2 h) | 10 | 0.1 | Platinum-193 | 10 | 0.1 |
| Europium-152 (13 yr) | 0.1 | 0.001 | Platinum-197m | 100 | 1. |
| Europium-154 | 0.1 | 0.001 | Platinum-197 | 10 | 0.1 |
| Europium-155 | 1 | 0.01 | Polonium-210 | 0.01 | 0.0001 |
| Fluorine-18 | 100 | 1. | Potassium-42 | 1 | 0.01 |
| Gadolinium-153 | 1 | 0.1 | Praseodymium-142 | 10 | 0.1 |
| Gadolinium-159 | 10 | 0.1 | Praseodymium-143 | 10 | 0.1 |
| Gallium-72 | 10 | 0.1 | Promethium-147 | 1 | 00.1 |
| Germanium-71 | 100 | 1. | Promethium-149 | 10 | 0.1 |
| Gold-198 | 10 | 0.1 | Radium-226 | 0.01 | 0.0001 |
| Gold-199 | 10 | 0.1 | Rhenium-186 | 10 | 0.1 |
| Hafnium-181 | 1 | 0.1 | Rhenium-188 | 10 | 0.1 |
| Holmium-166 | 10 | 0.1 | Rhodium-103m | 1,000 | 10 |
| Hydrogen-3 | 100 | 1. | Rhodium-105 | 10 | 0.1 |
| Indium-113m | 100 | 1. | Rubidium-86 | 1 | 0.01 |
| Indium-114m | 1 | 0.1 | Rubidium-87 | 1 | 0.01 |
| Indium-115m | 100 | 1. | Ruthenium-97 | 100 | 1. |
| Indium-115 | 1 | 0.1 | Ruthenium-103 | 1 | 0.01 |
| Iodine-125 | 0.1 | 0.001 | Ruthenium-105 | 10 | 0.1 |

| Radioactive Material | Col. I curies | Col. II curies |
|---|---|---|
| Ruthenium-106 | 0.1 | 0.001 |
| Samarium-151 | 1 | 0.01 |
| Samarium-153 | 10 | 0.1 |
| Scandium-46 | 1 | 0.01 |
| Scandium-47 | 10 | 0.1 |
| Scandium-48 | 1 | 0.01 |
| Selenium-75 | 1 | 0.01 |
| Silicon-31 | 10 | 0.1 |
| Silver-105 | 1 | 0.01 |
| Silver-110m | 0.1 | 0.001 |
| Silver-111 | 10 | 0.1 |
| Sodium-22 | 0.1 | 0.001 |
| Sodium-24 | 1 | 0.01 |
| Strontium-85 | 1,000 | 10 |
| Strontium-85 | 1 | 0.01 |
| Strontium-89 | 1 | 0.01 |
| Strontium-90 | 0.01 | 0.0001 |
| Strontium-91 | 10 | 0.1 |
| Strontium-92 | 10 | 0.1 |
| Sulfur-35 | 100 | 0.1 |
| Tantalum-182 | 1 | 0.01 |
| Technetium-96 | 10 | 0.1 |
| Technetium-97m | 10 | 0.1 |
| Technetium-97 | 10 | 0.1 |
| Technetium-99m | 100 | 1. |
| Technetium-99 | 1 | 0.01 |
| Tellurium-125m | 1 | 0.01 |
| Tellurium-127m | 1 | 0.01 |
| Tellurium-127 | 10 | 0.1 |
| Tellurium-129m | 1 | 0.01 |
| Tellurium-129 | 100 | 1. |
| Tellurium-131m | 10 | 0.1 |
| Tellurium-132 | 1 | 0.01 |
| Terbium-160 | 1 | 0.01 |
| Thallium-200 | 10 | 0.1 |
| Thallium-201 | 10 | 0.1 |
| Thallium-202 | 10 | 0.1 |
| Thallium-204 | 1 | 0.01 |
| Thulium-170 | 1 | 0.01 |
| Thulium-171 | 1 | 0.01 |
| Tin-113 | 1 | 0.01 |
| Tin-125 | 1 | 0.01 |
| Tungsten-181 | 1 | 0.01 |
| Tungsten-185 | 1 | 0.01 |
| Tungsten-197 | 10 | 0.1 |
| Vanadium-43 | 1 | 0.01 |
| Xenon-131m | 1,000 | 10 |
| Xenon-133 | 100 | 1. |
| Xenon-135 | 100 | 1. |
| Ytterbium-175 | 10 | 0.1 |
| Yttrium-90 | 1 | 0.01 |
| Yttrium-91 | 1 | 0.01 |
| Yttrium-92 | 10 | 0.1 |
| Yttrium-93 | 1 | 0.01 |
| Zinc-65 | 1 | 0.01 |
| Zinc-69m | 10 | 0.1 |
| Zinc-69 | 100 | 1. |
| Zirconium-93 | 1 | 0.01 |
| Zirconium-95 | 1 | 0.01 |
| Zirconium-97 | 1 | 0.01 |
| Any radioactive material other than source material, special nuclear material, or alpha emitting radioactive material not listed above. | 0.1 | 0.001 |

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Schedule C repealed; new Exhibit C renumbered from Exhibit D and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Exhibit D**
**Radioactive Material Quantities Requiring Consideration for an Emergency Plan (R12-1-322)**

| **Radioactive Material** | **Release Fraction** | **Quantity (Ci)** |
|---|---|---|
| Actinium-228 | 0.001 | 4,000 |
| Americium-241 | .001 | 2 |
| Americium-242 | .001 | 2 |
| Americium-243 | .001 | 2 |
| Antimony-124 | .01 | 4,000 |
| Antimony-126 | .01 | 6,000 |
| Barium-133 | .01 | 10,000 |
| Barium-140 | .01 | 30,000 |
| Bismuth-207 | .01 | 5,000 |
| Bismuth-210 | .01 | 600 |
| Cadmium-109 | .01 | 1,000 |
| Cadmium-113 | .01 | 80 |
| Calcium-45 | .01 | 20,000 |
| Californium-252 | .001 | 9 (20 mg) |
| Carbon-14 (Non CO) | .01 | 50,000 |
| Cerium-141 | .01 | 10,000 |
| Cerium-144 | .01 | 300 |
| Cesium-134 | .01 | 2,000 |
| Cesium-137 | .01 | 3,000 |
| Chlorine-36 | .5 | 100 |
| Chromium-51 | .01 | 300,000 |
| Cobalt-60 | .001 | 5,000 |
| Copper-64 | .01 | 200,000 |
| Curium-242 | .001 | 60 |
| Curium-243 | .001 | 3 |
| Curium-244 | .001 | 4 |
| Curium-245 | .001 | 2 |
| Europium-152 | .01 | 500 |
| Europium-154 | .01 | 400 |
| Europium-155 | .01 | 3,000 |
| Gadolinium-153 | .01 | 5,000 |
| Germanium-68 | .01 | 2,000 |
| Gold-198 | .01 | 30,000 |
| Hafnium-172 | .01 | 400 |
| Hafnium-181 | .01 | 7,000 |
| Holmium-166m | .01 | 100 |
| Hydrogen-3 | .5 | 20,000 |
| Indium-114m | .01 | 1,000 |
| Iodine-125 | .5 | 10 |
| Iodine-131 | .5 | 10 |
| Iridium-192 | .001 | 40,000 |

| | | |
|---|---|---|
| Iron-55 | .01 | 40,000 |
| Iron-59 | .01 | 7,000 |
| Krypton-85 | 1.0 | 6,000,000 |
| Lead-210 | .01 | 8 |
| Manganese-56 | .01 | 60,000 |
| Mercury-203 | .01 | 10,000 |
| Molybdenum-99 | .01 | 30,000 |
| Neptunium-237 | .001 | 2 |
| Nickel-63 | .01 | 20,000 |
| Niobium-94 | .01 | 300 |
| Phosphorus-32 | .5 | 100 |
| Phosphorus-33 | .5 | 1,000 |
| Polonium-210 | .01 | 10 |
| Potassium-42 | .01 | 9,000 |
| Promethium-145 | .01 | 4,000 |
| Promethium-147 | .01 | 4,000 |
| Ruthenium-106 | .01 | 200 |
| Samarium-151 | .01 | 4,000 |
| Scandium-46 | .01 | 3,000 |
| Selenium-75 | .01 | 10,000 |
| Silver-110m | .01 | 1,000 |
| Sodium-22 | .01 | 9,000 |
| Sodium-24 | .01 | 10,000 |
| Strontium-89 | .01 | 3,000 |
| Strontium-90 | .01 | 90 |
| Sulfur-35 | .5 | 900 |
| Technetium-99 | .01 | 10,000 |
| Technetium-99m | .01 | 400,000 |
| Tellurium-127m | .01 | 5,000 |
| Tellurium-129m | .01 | 5,000 |
| Terbium-160 | .01 | 4,000 |
| Thulium-170 | .01 | 4,000 |
| Tin-113 | .01 | 10,000 |
| Tin-123 | .01 | 3,000 |
| Tin-126 | .01 | 1,000 |
| Titanium-44 | .01 | 100 |
| Vanadium-48 | .01 | 7,000 |
| Xenon-133 | 1.0 | 900,000 |
| Yttrium-91 | .01 | 2,000 |
| Zinc-65 | .01 | 5,000 |
| Zirconium-93 | .01 | 400 |
| Zirconium-95 | .01 | 5,000 |
| Any other beta-gamma emitter | .01 | 10,000 |
| Mixed fission products | .01 | 1,000 |
| Mixed corrosion products | .01 | 10,000 |
| Contaminated equipment beta-gamma | .001 | 10,000 |
| Irradiated material, any form other than solid non-combustible | .01 | 1,000 |
| Irradiated material, solid noncombustible | .001 | 10,000 |
| Mixed radioactive waste, beta-gamma | .01 | 1,000 |
| Packaged mixed waste, beta gamma | .001 | 10,000 |
| Any other alpha emitter | .001 | 2 |
| Contaminated equipment, alpha | .0001 | 20 |
| Packaged waste, alpha | .0001 | 20 |

Combinations of radioactive materials listed above:

For combinations of radioactive materials, consideration of the need for an emergency plan is required if the sum of the ratios of the quantity of each radioactive material authorized to the quantity listed for that material in Exhibit D exceeds 1.

NOTE: Waste packaged in Type B containers does not require an emergency plan.

**Historical Note**

Adopted effective December 20, 1985 (Supp. 85-6). Former Schedule D renumbered to Exhibit C; new Exhibit D renumbered from Schedule E and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Exhibit E**

**Application Information**

**1. Radioactive Material (RAM) Specific License Application Information**

An applicant shall provide the following information in a specific license application before a license is issued to the applicant. The Agency shall provide an application form to an applicant with a guide, when possible, to insure that correct information is provided in the application:

- Name and mailing address of applicant
- Use location
- Contact person
- Telephone number
- Users of RAM
- Training of users
- Radiation Safety Officer identity (RSO)
- Duties of RSO
- Description of RAM and uses
- Description of radiation detection/measurement instruments and their calibration
- Personnel monitoring
- Bioassay program
- Facility description
- Survey program
- Leak test program
- Records management program
- Instruction to personnel
- Waste disposal program
- Emergency procedures
- Procedures for ordering, receiving, and opening packages
- Description of animal use
- Licensing fee provided with application
- Copy of letter-of-intent to local governing body
- Description of ALARA and quality management programs
- Description of transportation procedures
- Certifying signature
- Legal structure of licensee's operation

Other licensing requirements listed in: R12-1-310, R12-1-311, R12-1-312, R12-1-511, R12-1-703, and R12-1-1721

**2. Radioactive Material (RAM) General License Application Information**

An applicant shall provide the following information on a registration certificate. The certificate will be validated and returned to the applicant if the information provided is complete.

- Name and address
- Telephone number
- Where will the radioactive material be used
- Address of use location
- Description of radioactive material use
- Date

| Authorizing signature and printed name | Position of person signing the form |
|---|---|

**Historical Note**

Adopted effective February 18, 1994 (Supp. 94-1). Former Schedule E renumbered to Exhibit D; new Exhibit adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

## ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

### R12-1-401. Purpose

**A.** Article 4 establishes standards for protection against ionizing radiation resulting from activities conducted pursuant to licenses or registrations issued by the Agency. These regulations are issued pursuant to A.R.S. Title 30, Chapter 4, as amended.

**B.** The requirements of Article 4 are designed to control the receipt, possession, use, transfer, and disposal of sources of radiation by any licensee or registrant so the total dose to an individual, including doses resulting from all sources of radiation other than background radiation, does not exceed the standards for protection against radiation prescribed in Article 4. However, nothing in Article 4 shall be construed as limiting actions that may be necessary to protect health and safety.

**Historical Note**

Former Rule Section D.1; Former Section R12-1-401 repealed, new Section R12-1-401 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

### R12-1-402. Scope

Except as specifically provided in other Articles of these regulations, Article 4 applies to persons licensed or registered by the Agency to receive, possess, use, transfer, or dispose of sources of ionizing radiation. The limits in Article 4 do not apply to doses due to background radiation, to exposure of patients to radiation for the purpose of medical diagnosis or therapy, or to voluntary participation in medical research programs.

**Historical Note**

Former Rule Section D.2; Former Section R12-1-402 repealed, new Section R12-1-402 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended subsection (A) effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

### R12-1-403. Definitions

**A.** "ALI" means annual limit on intake, the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man that would result in a committed effective dose equivalent of 0.05 Sv (5 rem) or a committed dose equivalent of 0.5 Sv (50 rem) to any individual organ or tissue. ALI values for intake by ingestion and by inhalation of selected radionuclides are given in Table I, Columns 1 and 2, of Appendix B.

**B.** "Class" means a classification scheme for inhaled material according to its rate of clearance from the lung. Materials are classified as D, W, or Y, which applies to a range of clearance half-times: for Class D, Days, of less than 10 days, for Class W, Weeks, from 10 to 100 days, and for Class Y, years, of greater than 100 days (See Introduction, Appendix B). For purposes of these regulations, "lung class" and "inhalation class" are equivalent terms.

**C.** "DAC" means derived air concentration, the concentration of a given radionuclide in air which, if breathed by the reference man for a working year of 2,000 hours under conditions of light work, results in an intake of 1 ALI. For purposes of these regulations, the condition of light work is an inhalation rate of 1.2 cubic meters of air per hour for 2,000 hours in a year. DAC values are given in Table I, Column 3, of Appendix B.

**D.** "DAC-hour" means derived air concentration-hour, the product of the concentration of radioactive material in air, expressed as a fraction or multiple of the derived air concentration for each radionuclide, and the time of exposure to that radionuclide, in hours. A licensee or registrant may take 2,000 DAC-hours to represent 1 ALI, equivalent to a committed effective dose equivalent of 0.05 Sv (5 rem).

**E.** "Declared pregnant woman" means a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

**F.** "Deterministic effect" (see "Nonstochastic effect").

**G.** "Dosimetry processor" means an individual or an organization that processes and evaluates individual monitoring devices in order to determine the radiation dose delivered to the monitoring devices.

**H.** "Inhalation class" (see "Class").

**I.** "Lung class" (see "Class").

**J.** "Nonstochastic effect" means a health effect, the severity of which varies with the dose and for which a threshold is believed to exist. Radiation-induced cataract formation is an example of a nonstochastic effect. For purposes of these regulations, "deterministic effect" is an equivalent term.

**K.** "Planned special exposure" means an infrequent exposure to radiation received while employed, but separate from and in addition to the annual occupational dose limits.

**L.** "Probabilistic effect" (see "Stochastic effect").

**M.** "Reference Man" means a hypothetical aggregation of human physical and physiological characteristics determined by international consensus. These characteristics may be used by researchers and public health workers to standardize results of experiments and to relate biological insult to a common base. A description of the Reference Man is contained in the International Commission on Radiological Protection report, ICRP Publication 23, "Report of the Task Group on Reference Man," published in 1975 by Pergamon Press, incorporated herein by reference and on file with the Secretary of State.

**N.** "Respiratory protective equipment" means an apparatus, such as a respirator, used to reduce an individual's intake of airborne radioactive materials.

**O.** "Sanitary Sewerage" means a system of public sewers for carrying off waste water and refuse, but excluding sewage treatment facilities, septic tanks, and leach fields owned or operated by the licensee or registrant.

**P.** "Stochastic effect" means a health effect that occurs randomly and for which the probability of the effect occurring, rather than its severity, is assumed to be a linear function of dose without threshold. Hereditary effects and cancer incidence are examples of stochastic effects. For purposes of these regulations, "probabilistic effect" is an equivalent term.

**Q.** "Very high radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving an absorbed dose in excess of 5 Gy (500 rad) in 1

hour at 1 meter from a source of radiation or from any surface that the radiation penetrates. (At very high doses received at high dose rates, units of absorbed dose, gray and rad, are appropriate, rather than units of dose equivalent, sievert and rem)

**R.** "Weighting factor" $W_T$ for an organ or tissue (T) means the proportion of the risk of stochastic effects resulting from irradiation of that organ or tissue to the total risk of stochastic effects when the whole body is irradiated uniformly. For calculating the effective dose equivalent, the values of $W_T$ are:

ORGAN DOSE WEIGHTING FACTORS

| Organ or Tissue | $w_T$ |
|---|---|
| Gonads | 0.25 |
| Breast | 0.15 |
| Red bone marrow | 0.12 |
| Lung | 0.12 |
| Thyroid | 0.03 |
| Bone surfaces | 0.03 |
| Remainder | 0. 30[a] |
| Whole Body | 1. 00[b] |

[a]0.30 results from 0.06 for each of 5 "remainder" organs, excluding the skin and the lens of the eye, that receive the highest doses.

[b]For the purpose of weighting the external whole body dose, for adding it to the internal dose, a single weighting factor, $w_T = 1.0$, has been specified. The use of other weighting factors for external exposure will be approved by the Agency on a case-by-case basis until such time as specific guidance is issued.

**Historical Note**

Former Rule Section D.3, Former Section R12-1-403 repealed, new Section R12-1-403 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-404. Units and Quantities**

**A.** Each licensee or registrant shall use the SI units becquerel, gray, sievert, and coulomb per kilogram, or the special units curie, rad, rem and roentgen, including multiples and subdivisions, and shall clearly indicate the units of all quantities on records required by Article 4.

**B.** The licensee or registrant shall make a clear distinction among the quantities entered on the records required by Article 4, such as total effective dose equivalent, total organ dose equivalent, shallow-dose equivalent, eye-dose equivalent, deep-dose equivalent, or committed effective dose equivalent.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-405. Form of Records**

Each record required by Article 4 shall be legible throughout the specified retention period. The record shall be the original or a reproduced copy or a microform, provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period. As an alternative the record may be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records, such as letters, drawings, and specifications, shall include all pertinent information, such as stamps, initials, and signatures. A licensee or registrant shall maintain adequate safeguards against tampering with and loss of records.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-406. Implementation**

**A.** Any existing license or registration condition that is more restrictive than Article 4 remains in force until amendment or renewal of the license or registration.

**B.** If a license or registration condition exempts a licensee or registrant from a provision of Article 4 in effect on or before January 1, 1994, it also exempts the licensee or registrant from the corresponding provision of Article 4, until an amendment or renewal of the license or registration modifies or removes this condition.

**C.** If a license or registration condition cites provisions of Article 4 in effect prior to January 1, 1994, which do not correspond to any provisions of Article 4. The license or registration condition remains in force until an amendment or renewal of the license or registration modifies or removes this condition.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-407. Radiation Protection Programs**

**A.** Each licensee or registrant shall develop, document, and implement a radiation protection program sufficient to ensure compliance with the provisions of Article 4.

**B.** The licensee or registrant shall use, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and public doses that are as low as is reasonably achievable (ALARA).

**C.** The licensee or registrant shall, at intervals not to exceed 12 months, review the radiation protection program content and implementation.

**D.** Records.

1. Each licensee or registrant shall maintain records of the radiation protection program, including:
   a. The provisions of the program; and
   b. Audits and other reviews of program content and implementation.
2. The licensee or registrant shall retain the records required by subsection (D)(1)(a) above for 3 years after the termination of the license or registration. The licensee or registrant shall retain the records required by subsection (D)(1)(b) above for 3 years after the record is made.
3. The following licensees and registrants are exempt from the record requirements contained in this subsection:

| | |
|---|---|
| B6-General Medical | D15-Possession Only |
| C9-Gas Chromatograph | E2-X-ray Machine class B |
| C10-General Industrial | E3- X-ray Machine class C |

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25. 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-408. Occupational Dose Amounts for Adults**

**A.** The licensee or registrant shall control the occupational dose to individual adults, except for planned special exposures pursuant to R12-1-413, to the following dose limits:
1. An annual limit, which is the more limiting of:
   a. The total effective dose equivalent being equal to 0.05 Sv (5 rem): or
   b. The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 0.5 Sv (50 rem).
2. The annual limits to the lens of the eye, to the skin, and to the extremities which are:
   a. An eye dose equivalent of 0.15 Sv (15 rem), and
   b. A shallow dose equivalent of 0.5 Sv (50 rem) to the skin or to any extremity.

**B.** Doses received in excess of the annual limits, including doses received during accidents, emergencies, and planned special exposures, shall be subtracted from the limits for planned special exposures that the individual may receive during the current year and during the individual's lifetime. See R12-1-413.

**C.** The assigned deep-dose equivalent and shallow-dose equivalent is, for the portion of the body receiving the highest exposure, determined as follows:
1. The deep-dose equivalent, eye-dose equivalent, and shallow-dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or the results of individual monitoring are unavailable.
2. When a protective apron is worn and monitoring is conducted as specified in R12-1-419(B), the effective dose equivalent for external radiation shall be determined as follows:
   a. When only 1 individual monitoring device is used and it is located at the neck outside the protective apron, and the reported dose exceeds 25% of the limit specified in R12-1-408(A), the reported deep-dose equivalent value multiplied by 0.3 is the effective dose equivalent for external radiation; or
   b. When individual monitoring devices are worn, both under the protective apron at the waist and outside the protective apron at the neck, the effective dose equivalent for external radiation is assigned the value of the sum of the deep-dose equivalent reported for the individual monitoring device located at the waist under the protective apron multiplied by 1.5 and the deep-dose equivalent reported for the individual monitoring device located at the neck outside the protective apron multiplied by 0.04.

**D.** Derived air concentration (DAC) and annual limit on intake (ALI) values are presented in Table I of Appendix B and may be used to determine the individual's dose and to demonstrate compliance with the occupational dose limits.

**E.** Notwithstanding the annual dose limits, the licensee shall limit the soluble Uranium intake by an individual to 10 milligrams in a week in consideration of chemical toxicity. See footnote 3 of Appendix B.

**F.** The licensee or registrant shall reduce the dose that an individual may receive in the current year by the amount of occupational dose received while employed occupationally as a radiation worker by all previous employers. See R12-1-412.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-409. Summation of External and Internal Doses**

**A.** If the licensee or registrant is required to monitor according to both R12-1-419(B) and (C), the licensee or registrant shall add external and internal doses, and use the sum to demonstrate compliance with dose limits. If the licensee or registrant is required to monitor only according to R12-1-419(B) or only according to R12-1-419 (C), summation is not required to demonstrate compliance with dose limits. The licensee or registrant may demonstrate compliance with the requirements for summation of external and internal doses according to subsections (B), (C), and (D). The dose equivalents for the lens of the eye, the skin, and the extremities are not included in the summation but are subject to separate limits (See R12-1-408(A)(2)).

**B.** If the only intake of radionuclides is by inhalation, the total effective dose equivalent limit is not exceeded if the sum of the deep-dose equivalent divided by the total effective dose equivalent limit, and 1 of the following, does not exceed unity (one):
1. The sum of the fractions of the inhalation ALI for each radionuclide, or
2. The total number of derived air concentration-hours (DAC-hours) for all radionuclides divided by 2,000, or
3. The sum of the calculated committed effective dose equivalents to all significantly irradiated organs or tissues (T) calculated from bioassay data using appropriate biological models and expressed as a fraction of the annual limit. For purposes of this requirement, an organ or tissue is deemed to be significantly irradiated if, for that organ or tissue, the product of the weighting factors, $W_T$, and the committed dose equivalent, $H_{T,50}$, per unit intake is greater than 10% of the maximum weighted value of $H_{T,50}$, that is, $w_T H_{T,50}$, per unit intake for any organ or tissue.

**C.** If the occupationally exposed individual also receives an intake of radionuclides by oral ingestion greater than 10% of the applicable oral ALI, the licensee or registrant shall account for this intake and include it in demonstrating compliance with the limits.

**D.** The licensee or registrant shall evaluate and, to the extent practical, account for intakes through wounds or skin absorption. The intake through intact skin has been included in the calculation of DAC for Hydrogen-3 and does not need to be evaluated or accounted for pursuant to this subsection.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-410. Determination of External Dose from Airborne Radioactive Material**

**A.** Licensees or registrants shall, when determining the dose from airborne radioactive material, include the contribution to the deep-dose equivalent, eye, dose equivalent, and shallow dose equivalent from external exposure to the radioactive cloud. See Appendix B, footnotes 1 and 2.

**B.** Airborne radioactivity measurements and DAC values shall not be used as the primary means to assess the deep-dose equivalent when the airborne radioactive material includes radionuclides other than noble gases or if the cloud of airborne radioactive material is not relatively uniform. The determina-

tion of the deep-dose equivalent to an individual shall be based upon measurements using instruments or individual monitoring devices.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended effective June 20, 1990 (Supp. 90-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-411. Determination of Internal Exposure**

**A.** For purposes of assessing dose used to determine compliance with occupational dose equivalent limits, the licensee or registrant shall, when required pursuant to R12-1-419, take suitable and timely measurements of:
1. Concentrations of radioactive materials in air in work areas,
2. Quantities of radionuclides in the body,
3. Quantities of radionuclides excreted from the body, or
4. Combinations of these measurements,

**B.** Unless respiratory protective equipment is used, as provided in R12-1-425, or the assessment of intake is based on bioassays, the licensee or registrant shall assume that an individual inhales radioactive material at the airborne concentration in which the individual is present.

**C.** When specific information on the physical and biochemical properties of the radionuclides taken into the body or the behavior of the material in an individual is known, the licensee or registrant may:
1. Use that information to calculate the committed effective dose equivalent, and, if used, the licensee or registrant shall document that information in the individual's record;
2. Upon prior approval of the Agency, adjust the DAC or ALI values to reflect the actual physical and chemical characteristics of airborne radioactive material, for example, aerosol size distribution or density; and
3. Separately assess the contribution of fractional intakes of Class D, W, or Y compounds of a given radionuclide to the committed effective dose equivalent. See Appendix B.

**D.** If the licensee or registrant chooses to assess intakes of Class Y material using the measurements given in subsection (A)(2) or (3), the licensee or registrant may delay the recording and reporting of the assessments for periods up to 7 months, unless otherwise required by R12-1-444 or R12-1-445. This delay permits the licensee or registrant to make additional measurements basic to the assessments.

**E.** If the identity and concentration of each radionuclide in a mixture are known, the fraction of the DAC applicable to the mixture for use in calculating DAC-hours is either:
1. The sum of the ratios of the concentration to the appropriate DAC value, that is, D, W, or Y from Appendix B for each radionuclide in the mixture; or
2. The ratio of the total concentration for all radionuclides in the mixture to the most restrictive DAC value for any radionuclide in the mixture.

**F.** If the identity of each radionuclide in a mixture is known, but the concentration of 1 or more of the radionuclides in the mixture is not known, the DAC for the mixture is the most restrictive DAC of any radionuclide in the mixture.

**G.** When a mixture of radionuclides in air exists, a licensee or registrant may disregard certain radionuclides in the mixture if:
1. The licensee or registrant uses the total activity of the mixture to demonstrate compliance with the dose limits in R12-1-408 and to comply with the monitoring requirements in R12-1-419; and
2. The concentration of any radionuclide disregarded is less than 10% of its DAC; and
3. The sum of these percentages for all of the radionuclides disregarded in the mixture does not exceed 30%.

**H.** When determining the committed effective dose equivalent, the following information may be considered:
1. In order to calculate the committed effective dose equivalent, the licensee or registrant may assume that the inhalation of 1 ALI, or an exposure of 2,000 DAC-hours, results in a committed effective dose equivalent of 0.05 Sv (5 rem) for radionuclides that have their ALIs or DACs based on the committed effective dose equivalent.
2. For an ALI and the associated DAC determined by the nonstochastic organ dose limit of 0.5 Sv (50 rem), the intake of radionuclides that would result in a committed effective dose equivalent of 0.05 Sv (5 rem), that is, the stochastic ALI, is listed in parentheses in Table I of Appendix B. The licensee or registrant may, as a sampling assumption, use the stochastic ALI to determine committed effective dose equivalent. However, if the licensee or registrant uses the stochastic ALI, the licensee or registrant shall also demonstrate that the limit in R12-1-408(A)(1)(b) is met.

**Historical Note**
Former Rule Section D.101; Former Section R12-1-411 repealed, new Section R12-1-411 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended subsection (F) effective June 26, 1987 (87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-412. Determination of Prior Occupational Dose**

**A.** For each individual who may enter the licensee's or registrant's restricted area and is likely to receive, in a year, an occupational dose requiring monitoring pursuant to R12-1-419, the licensee or registrant shall:
1. Determine the occupational radiation dose received during the current year, and
2. Attempt to obtain the records of lifetime cumulative occupational radiation dose.

**B.** Prior to permitting an individual to participate in a planned special exposure, the licensee or registrant shall determine:
1. The internal and external doses from all previous planned special exposures; and
2. All doses in excess of the limits, including doses received during accidents and emergencies, received during the lifetime of the individual; and
3. All lifetime cumulative occupational radiation doses.

**C.** In complying with the requirements of subsection (A) above, a licensee or registrant may:
1. Accept, as a record of the occupational dose that the individual received during the current year, a written signed statement from the individual, or from the individual's most recent employer for work involving radiation exposure, that discloses the nature and the amount of any occupational dose that the individual received during the current year; and
2. Accept, as the record of lifetime cumulative radiation dose, an up-to-date Agency Form Y (available from the Agency) or equivalent, signed by the individual and countersigned by an appropriate official of the most recent employer for work involving radiation exposure,

or the individual's current employer, if the individual is not employed by the licensee or registrant; and

3. Obtain reports of the individual's dose equivalent from the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the licensee or registrant, by telephone, telegram, facsimile, or letter. The licensee or registrant shall request a written verification of the dose data if the authenticity of the transmitted report cannot be established.

**D.** Records.

1. The licensee or registrant shall record the exposure history, as required by subsection (A) above, on Agency Form Y (available from the Agency) or other clear and legible record, of all the information required by this subsection. The form or record shall show each period in which the individual received occupational exposure to radiation or radioactive material and shall be signed by the individual who received the exposure. For each period for which the licensee or registrant obtains reports, the licensee or registrant shall use the dose shown in the report in preparing Agency Form Y or equivalent. For any period in which the licensee or registrant does not obtain a report, the licensee or registrant shall place a notation on Agency Form Y or equivalent indicating the periods of time for which data are not available.
2. Licensees or registrants are not required to reevaluate the separate external dose equivalents and internal committed dose equivalents or intakes of radionuclides assessed pursuant to the regulations in Article 4 in effect before January 1, 1994. Further, occupational exposure histories obtained and recorded on Agency Form Y or equivalent before January 1, 1994, would not have included effective dose equivalent but may be used in the absence of specific information on the intake of radionuclides by the individual.
3. If the licensee or registrant is unable to obtain a complete record of an individual's current and previously accumulated occupational dose, the licensee or registrant shall assume:
   a. In establishing administrative controls pursuant to R12-1-408(F) for the current year, that the allowable dose limit for the individual is reduced by 12.5 mSv (1.25 rem) for each quarter for which records were unavailable and the individual was engaged in activities that could have resulted in occupational radiation exposure; and
   b. That the individual is not available for planned special exposures.
4. The licensee or registrant shall retain current and prior records on Agency Form Y or equivalent for 3 years after the Agency terminates each pertinent license or registration requiring this record. The licensee or registrant shall retain records used in preparing Agency Form Y or equivalent for 3 years after the record is made.

**Historical Note**

Former Rule Section D.102; Former Section R12-1-412 repealed, new Section R12-1-412 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-413. Planned Special Exposures**

**A.** A licensee or registrant may authorize an adult worker to receive doses in addition to and accounted for separately from the doses received under the limits specified in R12-1-408 provided that each of the following conditions is satisfied:

1. The licensee or registrant authorizes a planned special exposure only in an exceptional situation when alternatives that might avoid the higher exposure are unavailable or impractical.
2. The licensee or registrant, and employer if the employer is not the licensee or registrant, specifically authorizes the planned special exposure, in writing, before the exposure occurs.
3. Before a planned special exposure, the licensee or registrant ensures that each individual involved is:
   a. Informed in writing of the purpose of the planned operation; and
   b. Informed in writing of the estimated doses and associated potential risks and specific radiation levels or other conditions that might be involved in performing the task; and
   c. Instructed in the measures to be taken to keep the dose in accordance with R12-1-407(B), considering other risks that may be present.
4. Prior to permitting an individual to participate in a planned special exposure, the licensee or registrant ascertains prior doses as required by R12-1-412(B) during the lifetime of the individual for each individual involved.
5. Subject to R12-1-408(B), the licensee or registrant shall not authorize a planned special exposure that would cause an individual to receive a dose from all planned special exposures and all doses in excess of the limits to exceed:
   a. The numerical value of any of the dose limits in R12-1-408(A) in any year, and
   b. Five times the annual dose limits in R12-1-408(A) during the individual's lifetime.
6. The licensee or registrant maintains records of the conduct of a planned Special exposure in accordance with subsections (B) and (C) below and submits a written report to the Agency within 30 days following any planned special exposure conducted in accordance with this Section, informing the Agency that a planned special exposure was conducted and indicating the date the planned special exposure occurred and the information required by subsection (B) below.
7. The licensee or registrant records the best estimate of the dose resulting from the planned special exposure in the individual's record and informs the individual, in writing, of the dose within 30 days from the date of the planned special exposure. The dose from planned special exposures shall not be considered in controlling future occupational dose of the individual pursuant to R12-1-408(A) but shall be included in evaluations required by paragraphs (A)(4) and (5) above.

**B.** Records.

1. For each use of planned special exposures, the licensee or registrant shall maintain records that describe:
   a. The exceptional circumstances requiring the use of a planned special exposure,
   b. The name of the management official who authorized the planned special exposure and a copy of the signed authorization,
   c. What actions were necessary,
   d. Why the actions were necessary,
   e. What precautions were taken to assure that doses were maintained in accordance with R12-1-407(B),
   f. What individual and collective doses were expected to result,
   g. The doses actually received in the planned special exposure, and

h. That the employee involved in the planned special exposure has been informed in writing of the information contained in paragraph (A)(3) above.

2. The licensee or registrant shall retain the records for 3 years after the Agency terminates each pertinent license or registration requiring these records.

**Historical Note**

Former Rule Section D.103. Former Section R12-1-413 repealed, new Section R12-1-413 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-414. Occupational Dose Limits for Minors**

The annual occupational dose limits for minors are 10% of the annual occupational dose limits specified for adult workers in R12-1-408.

**Historical Note**

Former Rule Section D. 104; Former Section R12-1-414 repealed, new Section R12-1-414 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-415. Dose to an Embryo or Fetus**

**A.** A licensee or registrant shall ensure that the dose to an embryo or fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 5 mSv (0.5 rem). Records shall be maintained according to R12-1-419(D)(4) and (5).

**B.** The licensee or registrant shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman to satisfy the limit in subsection (A).

**C.** The dose to an embryo or fetus is the sum of:

1. The deep-dose equivalent to the declared pregnant woman, and
2. The dose to the embryo or fetus from radionuclides in the embryo or fetus and radionuclides in the declared pregnant woman.

**D.** If by the time the woman declares pregnancy to the licensee or registrant, the dose to the embryo or fetus has exceeded 4.5 mSv (0.45 rem), the licensee or registrant is deemed to be in compliance with subsection (A), if the additional dose to the embryo or fetus does not exceed 0.5 mSv (0.05 rem) during the remainder of the pregnancy.

**Historical Note**

Former Rule Section D. 105; Former Section R12-1-415 repealed, new Section R12-1-415 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-416. Dose Limits for Individual Members of the Public**

**A.** Each licensee or registrant shall conduct operations so that:

1. The total effective dose equivalent to individual members of the public from the licensed or registered operation does not exceed 1 mSv (0.1 rem) in a year, exclusive of the dose contribution from the license's or registrant's disposal of radioactive material into sanitary sewerage in accordance with R12-1-436;
2. Registrants shall not be required to retrofit locations within facilities where only radiation machines exist prior to the effective date of these rules and met the previous requirement of (0.5 rem) in a year;
3. The dose in any unrestricted area from external sources does not exceed 0.02 mSv (0.002 rem) in any 1 hour.

**B.** A licensee, registrant, or an applicant for a license or registration may apply for prior Agency authorization to operate up to an annual dose limit for an individual member of the public of 5 mSv (0.5 rem). This application shall include the following information:

1. Demonstration of the need for and the expected duration of operations in excess of the limit in subsection (A) above, and
2. The licensee's or registrant's program to assess and control dose within the 5 mSv (0.5 rem) annual limit; and
3. The procedures to be followed to maintain the dose in accordance with R12-1-407(B).

**C.** In addition to the requirements of Article 4, a licensee or registrant subject to the provisions of the U.S. Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190, 1992 Edition, published July 1, 1992, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Office of the Secretary of State, shall comply with those standards.

**D.** The Agency may impose additional restrictions on radiation levels in unrestricted areas and on the total quantity of radionuclides that a licensee or registrant may release in effluents in order to restrict the collective dose.

**E.** Each licensee or registrant shall make or cause to be made surveys of radiation levels in unrestricted and radioactive materials in effluents released to unrestricted areas to demonstrate compliance with the dose limits for individual members of the public listed above.

**F.** Each licensee or registrant shall show compliance with the annual dose limit listed above by:

1. Demonstrating by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed or registered operation does not exceed the annual dose limit; or
2. Demonstrating that:
   a. The annual average concentrations of radioactive material released in gaseous and liquid effluents at the boundary of the unrestricted area do not exceed the values specified in Table II of Appendix B; and
   b. If an individual were continually present in an unrestricted area, the dose from external sources would not exceed 0.02 mSv (0.002 rem) in an hour and 0.5 mSv (0.05 rem) in a year.

**G.** Upon approval from the Agency, the licensee or registrant may adjust the effluent concentration values in Appendix B, Table II for members of the public, to take into account the actual physical and chemical characteristics of the effluents, such as aerosol size distribution, solubility, density, radioactive decay equilibrium, and chemical form.

**H.** Records. Each licensee or registrant shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public and shall retain the records for 3 years after the Agency terminates each pertinent license or registration requiring the record.

**Historical Note**

Former Rule Section D. 106; Former Section R12-1-416 repealed, new Section R12-1-416 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-417. Testing for Leakage or Contamination of Sealed Sources**

**A.** The licensee in possession of any sealed source shall assure that:
1. Each sealed source, except as specified in subsection (B) below, is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee has a certificate from the transferor indicating that the sealed source was tested within 6 months before transfer to the licensee or registrant.
2. Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed 6 months or at alternative intervals approved by the Agency, after evaluation of information specified by R12-1-311(D)(2) and (3) of these regulations, or equivalent information specified by an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission.
3. Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed 3 months or at alternative intervals approved by the Agency, after evaluation of information specified by R12-1-311(D)(2) and (3) of these regulations, or equivalent information specified by an Agreement State, a Licensing State, or the Nuclear Regulatory Commission.
4. For each sealed source that is required to be tested for leakage or contamination, at any other time there is reason to suspect that the sealed source might have been damaged or might be leaking, the licensee or registrant shall assure that the sealed source is tested for leakage or contamination before further use.
5. Tests for leakage for all sealed sources, except brachytherapy sources manufactured to contain radium, shall be capable of detecting the presence of 185 Bq (0.005 μCi) of radioactive material on a test sample. Test samples shall be taken from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which one might expect contamination to accumulate. For a sealed source contained in a device, test samples are obtained when the source is in the "off" position.
6. The test for leakage for brachytherapy sources manufactured to contain Radium shall be capable of detecting an absolute leakage rate of 37 Bq (0.001 μCi) of Radon-222 in a 24-hour period when the collection efficiency for Radon-222 and its daughters has been determined with respect to collection method, volume, and time.
7. Tests for contamination from Radium daughters shall be taken on the interior surface of brachytherapy source storage containers and shall be capable of detecting the presence of 185 Bq (0.005 μCi) of a Radium daughter which has a half-life greater than 4 days.

**B.** A licensee or registrant need not perform test for leakage or contamination on the following sealed sources:
1. Sealed sources containing only radioactive material with a half-life of less than 30 days;
2. Sealed sources containing only radioactive material as a gas;
3. Sealed sources containing 3.7 MBq (100 μCi) or less of beta or photon-emitting material or 370 kBq (10 μCi) or less of alpha-emitting material;
4. Sealed sources containing only Hydrogen-3;
5. Seeds of Iridium-192 encased in nylon ribbon; and
6. Sealed sources, except teletherapy and brachyherapy sources, which are stored, not being used, and identified as in storage. The licensee or registrant shall, however, test each such sealed source for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within 6 months before the date of use or transfer.

**C.** Tests for leakage or contamination from sealed sources shall be performed by persons specifically authorized by the Agency, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services.

**D.** Test results shall be kept in units of becquerel or microcurie and maintained for inspection by the Agency.

**E.** The following shall be considered evidence that a sealed source is leaking:
1. The presence of 185 Bq (0.005 μCi) or more of removable contamination on any test sample.
2. Leakage of 37 Bq (0.001 μCi) of Radon-222 per 24 hours for brachytherapy sources manufactured to contain Radium.
3. The presence of removable contamination resulting from the decay of 185 Bq (0.005 μCi) or more of Radium.

**F.** The licensee or registrant shall immediately withdraw a leaking sealed source from use and shall take action to prevent the spread of contamination. The leaking sealed source shall be repaired or disposed of in accordance with this Article 4.

**G.** Reports. The licensee shall file a report within 5 days with the Agency if the test for leakage or contamination indicates a sealed source is leaking or contaminated. The report shall include the equipment involved, the test results, and the corrective action taken.

**H.** Records. Records of tests for leakage or contamination of sealed sources shall be kept in units of becquerel or microcurie and maintained for inspection by the Agency for 3 years after the records are made.

**Historical Note**

Former Rule Section D. 107; Former Section R12-1-417 repealed, new Section R12-1-417 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-418. Surveys and Monitoring**

**A.** Each licensee or registrant shall make, or cause to be made, surveys that are necessary:
1. For the licensee or registrant to comply with Article 4, and
2. Under the circumstances to evaluate:
   a. Radiation levels,
   b. Concentrations or quantities of radioactive material, and
   c. The potential radiological hazards that could be present.

**B.** All personnel dosimeters, except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to any extremity, that require processing to determine the radiation dose and that are used by licensees and registrants to comply with R12-1-408, with other applicable provisions of these rules, or with conditions specified in a license or registration shall be processed and evaluated by a dosimetry processor:
1. Holding current personnel dosimetry accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology, pursuant to NVLAP PROCEDURES published November 1990, as Edition NISTIR-4493 by the U.S. Department of Commerce, incorporated by reference and on file with the Secretary of State, containing no future editions or amendments; and

2. Approved in this accreditation process for the type of radiation or radiations included in the NVLAP program that most closely approximates the type of radiation or radiations for which the individual wearing the dosimeter is monitored.

**C.** The licensee or registrant shall ensure that adequate precautions are taken to prevent a deceptive exposure of an individual monitoring device and that personnel monitoring devices are issued to, and used by only the individual to whom the monitoring device has been 1st issued during any reporting period.

**D.** Records.

1. Each licensee or registrant shall maintain records showing the results of surveys required by this Section and R12-1-433(B). The licensee or registrant shall retain these records for 3 years after the record is made.
2. The licensee or registrant shall retain each of the following records for 3 years after the Agency terminates each pertinent license or registration requiring the record:
   a. Records of the results of surveys to determine the dose from external sources of radiation used, in the absence of or in combination with individual monitoring data, in the assessment of individual dose equivalents;
   b. Records of the results of measurements and calculations used to determine individual intakes of radioactive material and used in the assessment of internal dose;
   c. Records showing the results of air sampling, surveys, and bioassays required pursuant to R12-1-425(A)(3)(a) and (b); and
   d. Records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment.

**Historical Note**

Former Rule Section D. 108; Former Section R12-1-418 repealed, new Section R12-1-418 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-419. Conditions Requiring Individual Monitoring of External and Internal Occupational Dose**

**A**. Each licensee or registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of this Article.

**B.** At a minimum each licensee or registrant shall supply and require the use of individual monitoring devices by:

1. Adults likely to receive, in 1 year from sources external to the body, a dose in excess of 10% of the limits in R12-1-408(A);
2. Minors and declared pregnant women likely to receive, in 1 year from sources external to the body, a dose in excess of 10% of any of the applicable limits in R12-1-414 or R12-1-415;
3. Individuals entering a high or very high radiation area; and
4. Individuals working with open beam fluoroscopic systems capable of exposing the individuals to 10% of the limits in R12-1-408(A). The individual monitoring device shall be located on the person according to the following requirements.
   a. An individual monitoring device used for the dose to an embryo or fetus of a declared pregnant woman, according to R12-1-415(A), shall be located under the protective apron at the waist. A qualified expert shall be consulted to determine the dose to the embryo/fetus for the rare occasion in which this individual monitoring device has a monthly reported dose equivalent value in excess of 0.5 mSv (50 mrem). For purposes of these rules, the value to be used for determining the dose to an embryo or fetus according to R12-1-415(C)(1), for occupational exposure to radiation from medical fluoroscopic equipment is the value reported by the individual monitoring device worn at the waist underneath the protective apron which has been corrected for the particular individual and her work environment by a qualified expert;
   b. An individual monitoring device used for eye dose equivalent shall be located at the neck, or an unshielded location closer to the eye, outside the protective apron;
   c. When only 1 individual monitoring device is used to determine the effective dose equivalent for external radiation according to R12-1-408(C)(2), it shall be located at the neck outside the protective apron. When a 2nd individual monitoring device is used for the same purpose, it shall be located under the protective apron at the waist. (Note: The 2nd individual monitoring device is required for a declared pregnant woman.)

**C.** At a minimum, each licensee or registrant shall monitor, to determine compliance with R12-1-411, the occupational intake of radioactive material and assess the committed effective dose equivalent to:

1. Adults likely to receive, in 1 year, an intake in excess of 10% of the applicable ALI in Table I, Columns 1 and 2 of Appendix B; and
2. Minors and declared pregnant women likely to receive, in 1 year, a committed effective dose equivalent in excess of 0.5 mSv (0.05 rem).

**D.** Records.

1. Each licensee or registrant shall maintain records of doses received by all individuals for whom monitoring is required according to this Section, and records of doses received during planned special exposures, accidents, and emergency conditions. Assessments of dose equivalent and records made using units in effect before January 1, 1994, need not be changed. These records shall include, when applicable:
   a. The deep-dose equivalent to the whole body, eye dose equivalent, shallow dose equivalent to the skin, and shallow dose equivalent to the extremities;
   b. The estimated intake of radionuclides, see R12-1-409:
   c. The committed effective dose equivalent assigned to the intake of radionuclides;
   d. The specific information used to calculate the committed effective dose equivalent according to R12-1-411(C):
   e. The total effective dose equivalent when required by R12-1-409: and
   f. The total of the deep-dose equivalent and the committed dose to the organ receiving the highest total dose;

2. The licensee or registrant shall make entries of the records specified in subsection (D)(1), at intervals not to exceed 1 year;
3. The licensee or registrant shall maintain at the inspection site the records specified in subsection (D)(1), on Agency Form Z (available from the Agency), in accordance with the instructions for Agency Form Z, or in clear and legible records containing all the information required by this subsection;
4. The licensee or registrant shall maintain the records of dose to an embryo or fetus with the records of dose to the declared pregnant woman. The declaration of pregnancy, including the estimated date of conception, shall also be kept on file but may be maintained separately from the dose records;
5. The licensee or registrant shall retain each required form or record for 3 years after the Agency terminates each pertinent license or registration requiring the record.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-420. Control of Access to High Radiation Areas**

**A.** The licensee or registrant shall ensure that each entrance or access point to a high radiation area has 1 or more of the following features:
1. A control device that, upon entry into the area, causes the level of radiation to be reduced below that level at which an individual might receive a deep-dose equivalent of 1 mSv (0.1 rem) in 1 hour at 30 centimeters from the source of radiation from any surface that the radiation penetrates;
2. A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or
3. Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entity.

**B.** In place of the controls required by subsection (A) for a high radiation area, the licensee or registrant may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.

**C.** The licensee or registrant may apply to the Agency for approval of alternative methods for controlling access to high radiation areas.

**D.** The licensee or registrant shall establish the controls required by subsection (A) and (C) above in a way that does not prevent individuals from leaving a high radiation area.

**E.** The licensee or registrant is not required to control each entrance or access point to a room or other area that is a high radiation area solely because of the presence of radioactive materials prepared for transport and packaged and labeled in accordance with the regulations of the U.S. Department of Transportation, provided that:
1. The packages do not remain in the area longer than 3 days, and
2. The dose rate at 1 meter from the external surface of any package does not exceed 0.1 mSv (0.01 rem) per hour.

**F.** The licensee or registrant is not required to control entrance or access to rooms or other areas in hospitals solely because of the presence of patients containing radioactive material, provided that there are personnel in attendance who are taking the necessary precautions to prevent the exposure of individuals to radiation or radioactive material in excess of the established limits in Article 4 and to operate in accordance with R12-1-407(B) and the provisions of the licensee's or registrant's radiation protection program.

**G.** The registrant is not required to control entrance or access to rooms or other areas containing sources of radiation capable of producing a high radiation area as described in this Section if the registrant has met all the specific requirements for access and control specified in other applicable Articles of these regulations, such as Article 5 for industrial radiography, Article 6 for x-rays in the healing arts, and Article 8 for particle accelerators.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-421. Control of Access to Very-high Radiation Areas**

**A.** In addition to the requirements in R12-1-420, the licensee or registrant shall institute measures to ensure that an individual is not able to gain unauthorized or inadvertent access to areas in which radiation levels could be encountered at 5 Gy (500 rad) or more in 1 hour at 1 meter from a source of radiation or any surface through which the radiation penetrates. This requirement does not apply to rooms or areas in which diagnostic x-ray systems are the only source of radiation, or to non-self-shielded irradiators.

**B.** The registrant is not required to control entrance or access to rooms or other areas containing sources of radiation capable of producing a very high radiation area as described in subsection (A) above, if the registrant has met all the specific requirements for access and control specified in other applicable Articles of these regulations, such as Article 5 for industrial radiography, Article 6 for x-rays in the healing arts, and Article 8 for particle accelerators.

**C.** Each licensee or registrant shall maintain records of tests made pursuant to R12-1-422(B)(9) on entry control devices for very high radiation areas. These records shall include the date, time, and results of each such test of function.

**D.** The licensee or registrant shall retain the records required by this Section for 3 years after the record is made.

**Historical Note**
Former Rule Section D.201; Former Section R12-1-421 repealed, new Section R12-1-421 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-422. Control of Access to Irradiators (Very-high Radiation Areas)**

**A.** This Section applies to licensees or registrants with sources of radiation in non-self-shielded irradiators. This Section does not apply to sources of radiation that are used in teletherapy, in industrial radiography, or in completely self-shielded irradiators in which the source of radiation is both stored and operated within the same shielding radiation barrier and, in the designed configuration of the irradiator, is always physically inaccessible to any individual and cannot create high levels of radiation in an area that is accessible to any individual.

**B.** Each area in which there may exist radiation levels in excess of 5 Gy (500 rad) in 1 hour at 1 meter from a source of radiation that is used to irradiate materials shall meet the following requirements:

1. Each entrance or access point shall be equipped with entry control devices which:
   a. Function automatically to prevent any individual from inadvertently entering a very high radiation area;
   b. Permit deliberate entry into the area only after a control device is actuated that causes the radiation level within the area, from the source of radiation, to be reduced below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour; and
   c. Prevent operation of the source of radiation if it would produce radiation levels in the area that could result in a deep-dose equivalent to an individual in excess of 1 mSv (0.1 rem) in 1 hour.
2. Additional control devices shall be provided so that, upon failure of the entry control devices to function as required by subsection (B)(1) above:
   a. The radiation level within the area, from the source of radiation, is reduced below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour; and
   b. Conspicuous visible and audible alarm signals are generated to make an individual attempting to enter the area aware of the hazard and at least 1 other authorized individual, who is physically present, familiar with the activity and prepared to render or summon assistance, aware of the failure of the entry control devices.
3. The licensee or registrant shall provide control devices so that, upon failure or removal of physical radiation barriers other than the sealed source's shielded storage container:
   a. The radiation level from the source of radiation is reduced below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour; and
   b. Conspicuous visible and audible alarm signals are generated to make potentially affected individuals aware of the hazard and the licensee or registrant or at least 1 other individual, who is familiar with the activity and prepared to render or summon assistance, aware of the failure or removal of the physical barrier.
4. When the shield for stored sealed sources is a liquid, the licensee or registrant shall provide means to monitor the integrity of the shield and to signal, automatically, loss of adequate shielding.
5. Physical radiation barriers that comprise permanent structural components, such as walls, that have no credible probability of failure or removal in ordinary circumstances need not meet the requirements of paragraphs (A)(3) and (4) above.
6. Each area shall be equipped with devices that will automatically generate conspicuous visible and audible alarm signals to alert personnel in the area before the source of radiation can be put into operation and in time for any individual in the area to operate a clearly identified control device, which shall be installed in the area and which can prevent the source of radiation from being put into operation.
7. Each area shall be controlled by use of such administrative procedures and such devices as are necessary to ensure that the area is cleared of personnel prior to each use of the source of radiation.
8. Each area shall be checked by a radiation measurement to ensure that, prior to the first individual's entry into the area after any use of the source of radiation, the radiation level from the source of radiation in the area is below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour.
9. The entry control devices required in paragraph (B)(1) above shall be tested for proper functioning. Recordkeeping shall be in accordance with R12-1-421.
   a. Testing shall be conducted prior to initial operation with the source of radiation on any day, unless operations were continued uninterrupted from the previous day;
   b. Testing shall be conducted prior to resumption of operation of the source of radiation after any unintentional interruption: and
   c. The licensee or registrant shall submit to the Agency and adhere to a schedule for periodic tests of the entry control and warning systems.
10. The licensee or registrant shall not conduct operations, other than those necessary to place the source of radiation in safe condition or to effect repairs on controls, unless control devices are functioning properly.
11. Entry and exit portals that are used in transporting materials to and from the irradiation area, and that are not intended for use by individuals, shall be controlled by such devices and administrative procedures as are necessary to physically protect and warn against inadvertent entry by any individual through these portals. Exit portals for irradiated materials shall be equipped to detect and signal the presence of any loose radioactive material that is carried toward such an exit and automatically to prevent loose radioactive material from being carried out of the area.

**C.** Licensees, registrants, or applicants for licenses or registrations for sources of radiation within the purview of subsection (B) above which will be used in a variety of positions or in locations, such as open fields or forests, that make it practicable to comply with certain requirements of subsection (B) above, such as those for the automatic control of radiation levels, may apply to the Agency for approval of alternative safety measures. Alternative safety measures shall provide personnel protection at least equivalent to those specified in subsection (B) above. At least 1 of the alternative measures shall include an entry-preventing interlock control based on a measurement of the radiation that ensures the absence of high radiation levels before an individual can gain access to the area where such sources of radiation are used.

**D.** The entry control devices required by subsections (B) and (C) above shall be established in such a way that no individual will be prevented from leaving the area.

**E.** Records.

1. Each licensee or registrant shall maintain records of tests made pursuant to paragraph (B)(9) above on entry control devices for very high radiation areas. These records shall include the date, time, and results of each such test of function.
2. The licensee or registrant shall retain the records for 3 years after the record is made.

**Historical Note**
Former Rule Section D.202; Former Section R12-1-422

repealed, new Section R12-1-422 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-423. Use of Process or Other Engineering Controls**

The licensee shall use process or other engineering controls, such as containment or ventilation, to control the concentrations of radioactive material in air, as may be required to meet the requirements of R12-1-407.

**Historical Note**

Former Rule Section D.203. Former Section R12-1-423 repealed, new Section R12-1-423 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-424. Use of Other Controls**

When it is not practicable to apply process or other engineering controls to control the concentrations of radioactive material in air to values below those that define an airborne radioactivity area, the licensee shall, consistent with maintaining the total effective dose equivalent in accordance with R12-1-407(B), increase monitoring and limit intakes by 1 or more of the following means:

1. Control of access, or
2. Limitation of exposure times;
3. Use of respiratory protection equipment, or
4. Other controls.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-425. Use of Individual Respiratory Protection Equipment**

**A.** If the licensee uses respiratory protection equipment to limit intakes pursuant to R12-1-424:

1. Except as provided in paragraph (A)(2) below, the licensee shall use only respiratory protection equipment that is tested and certified or had certification extended by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration, using standards in 30 CFR 11, 1993 Edition, published July 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Office of the Secretary of State.
2. If the licensee wishes to use equipment that has not been tested or certified by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration has not had certification extended by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration, or for which there is no schedule for testing or certification, the licensee shall submit an application for authorized use of that equipment, including a demonstration by testing, or a demonstration on the basis of reliable test information, that the material and performance characteristics of the equipment are capable of providing the proposed degree of protection under anticipated conditions of use, as required in 30 CFR 11, referenced in paragraph (A)(1) above.
3. The licensee shall implement and maintain a respiratory protection program that includes:
   a. Air sampling sufficient to identify the potential hazard, permit proper equipment selection, and estimate exposures;
   b. Surveys and bioassays, as appropriate, to evaluate actual intakes;
   c. Testing of respirators for operability immediately prior to each use;
   d. Written procedures regarding selection, fitting, issuance, maintenance, and testing of respirators, including testing for operability immediately prior to each use; supervision and training of personnel; monitoring, including air sampling and bioassays; and recordkeeping: and
   e. Determination by a physician prior to initial fitting of respirators, and at least every 12 months thereafter, that the individual user is physically able to use the respiratory protection equipment.
4. The licensee shall issue a written policy statement on respirator usage covering:
   a. The use of process or other engineering controls, instead of respirators;
   b. The routine, nonroutine, and emergency use of respirators; and
   c. The length of periods of respirator use and relief from respirator use.
5. The licensee shall advise each respirator user that the user may leave the area at any time for relief from respirator use in the event of equipment malfunction, physical or psychological distress, procedural or communication failure, significant deterioration of operating conditions, or any other conditions that might require such relief.
6. The licensee shall use respiratory protection equipment within the equipment manufacturer's expressed limitations for type and mode of use and shall provide proper visual, communication, and other special capabilities, such as adequate skin protection, when needed.

**B.** When estimating exposure of individuals to airborne radioactive materials, the licensee may take credit for respiratory protection equipment used to limit intakes pursuant to R12-1-424, provided that the following conditions, in addition to those in subsection (A) above, are satisfied:

1. The licensee selects respiratory protection equipment that provides a protection factor, specified in Appendix A, greater than the multiple by which peak concentrations of airborne radioactive materials in the working area are expected to exceed the values specified in Appendix B, Table I, Column 3. However, if the selection of respiratory protection equipment with a protection factor greater than the peak concentration is inconsistent with the goal specified in R12-1-424 of keeping the total effective dose equivalent as required in R12-1-407(B), the licensee may select respiratory protection equipment with a lower protection factor provided that such a selection would result in a total effective dose equivalent that meets the requirements in R12-1-407(B). The concentration of radioactive material in the air that is inhaled when respirators are worn may be initially estimated by dividing the average concentration in air, during each period of uninterrupted use, by the protection factor. If the exposure is later found to be greater than initially estimated, the corrected value shall be used; if the exposure is later found to be less than initially estimated, the corrected value may be used.
2. The licensee shall obtain authorization from the Agency before assigning respiratory protection factors in excess of those specified in Appendix A. The Agency may authorize a licensee to use higher protection factors on receipt of an indication that:
   a. Describes the situation for which a need exists for higher protection factors, and

b. Demonstrates that the respiratory protection equipment provides these higher protection factors under the proposed conditions of use.

**C.** In an emergency, the licensee shall use as emergency equipment only respiratory protection equipment that has been specifically certified or had certification extended for emergency use by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration.

**D.** Reports. The licensee shall notify the Agency in writing at least 30 days before the date that respiratory protection equipment is first used pursuant to either R12-1-425(A) or (B).

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-426. Security of Stored Sources of Radiation**
The licensee or registrant shall secure from unauthorized removal or access licensed or registered sources of radiation that are stored in unrestricted areas.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-427. Control of Sources of Radiation Not in Storage**

**A.** The licensee shall control and maintain constant surveillance of licensed or registered radioactive material that is in an unrestricted area and that is not in storage or in a patient.

**B.** The registrant shall maintain control of radiation machines that are in an unrestricted area and that are not in storage.

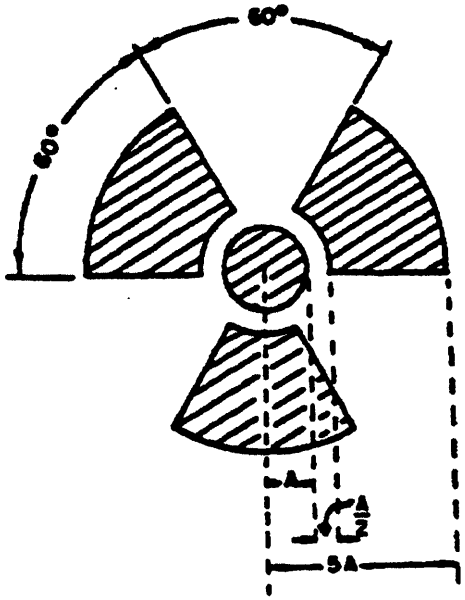
**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-428. Caution Signs**

**A.** Standard radiation symbol. Unless otherwise authorized by the Agency, the symbol prescribed by this Section shall use the colors magenta, or purple, or black on yellow background. The symbol prescribed is the three-bladed design as follows:

RADIATION SYMBOL

1. Cross-hatched area is to be magenta, or purple, or black; and
2. The background is to be yellow.




**B.** Exception to color requirements for standard radiation symbol. Notwithstanding the requirements of subsection (A) above, licensees or registrants are authorized to label sources, source holders, or device components containing sources of radiation that are subjected to high temperatures, with conspicuously etched or stamped radiation caution symbols and without a color requirement.

**C.** Additional information on signs and labels. In addition to the contents of signs and labels prescribed in Article 4, the licensee or registrant shall provide, on or near the required signs and labels, additional information, as appropriate, to make individuals aware of potential radiation exposures and to minimize the exposures.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-428 repealed, new Section R12-1-428 adopted effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-429. Posting Requirements**

**A.** Posting of radiation areas. The licensee or registrant shall post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIATION AREA."

**B.** Posting of high radiation areas. The licensee or registrant shall post each high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA."

**C.** Posting of very high radiation areas. The licensee or registrant shall post each very high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "GRAVE DANGER, VERY HIGH RADIATION AREA."

**D.** Posting of airborne radioactivity areas. The licensee shall post each airborne radioactivity area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, AIRBORNE RADIOACTIVITY AREA" or "DANGER, AIRBORNE RADIOACTIVITY AREA."

**E.** Posting of areas or rooms in which licensed material is used or stored. The licensee shall post each area or room in which there is used or stored an amount of licensed material exceed-

ing 10 times the quantity of such material specified in Appendix C with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL(S)" or "DANGER, RADIOACTIVE MATERIAL(S)."

**Historical Note**
Former Section R12-1-429 repealed effective June 30, 1977 (Supp. 77-3). New Section 12-1-429 adopted effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-430. Exceptions to Posting Requirements**

**A.** A licensee or registrant is not required to post caution signs in areas or rooms containing sources of radiation for periods of less than 8 hours, if each of the following conditions is met:
1. The sources of radiation are constantly attended during these periods by an individual who takes the precautions necessary to prevent the exposure of individuals to sources of radiation in excess of the limits established in Article 4; and
2. The area or room is subject to the licensee's or registrant's control.

**B.** Rooms or other areas in hospitals that are occupied by patients are not required to be posted with caution signs pursuant to R12-1-429, provided that confinement of the patient is not required pursuant to a condition on the radioactive material license.

**C.** A room or area is not required to be posted with a caution sign because of the presence of a sealed source provided the radiation level at 30 centimeters from the surface of the sealed source container or housing does not exceed 0.05 mSv (0.005 rem) per hour.

**D.** A room or area is not required to be posted with a caution sign because of the presence of radiation machines used solely for diagnosis in the healing arts.

**Historical Note**
Former Section R12-1-430 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-430 adopted effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-431. Labeling Containers and Radiation Machines**

**A.** The licensee shall ensure that each container of licensed material bears a durable, clearly visible label bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL." The label shall also provide information, such as the radionuclides present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, radiation levels, kinds of materials, and mass enrichment, to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions to avoid or minimize exposures.

**B.** Each licensee shall, prior to removal or disposal of empty uncontaminated containers to unrestricted areas, remove or deface the radioactive material label or otherwise clearly indicate that the container no longer contains radioactive materials.

**C.** Each registrant shall ensure that each radiation machine is labeled in a conspicuous manner which cautions individuals that radiation is produced when it is energized.

**Historical Note**
Former Section R12-1-431 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-431 adopted effective June 26, 1987 (Supp. 87-2). Amended effective November 5, 1993 (Supp. 93-4). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-432. Exemptions to Labeling Requirements**

A licensee is not required to label:
1. Containers holding licensed material in quantities less than the quantities listed in Appendix C;
2. Containers holding licensed material in concentrations less than those specified in Table III of Appendix B;
3. Containers attended by an individual who takes the precautions necessary to prevent the exposure of individuals in excess of the limits established by Article 4;
4. Containers which contain radioactive material that does not exceed the limits for excepted quantity or article as defined and limited by the U.S. Department of Transportation (USDOT) regulations, 49 CFR 173.403(m) and (w), and 173.421 through 173.424, and are in transport and packaged and labeled in accordance with 49 CFR 172.403 and 172.436 through 172.440, of the U.S. Department of Transportation, 1992 Edition, published October 1, 1992, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Office of the Secretary of State;
5. Containers that are accessible only to individuals authorized to handle or use them, or to work in the vicinity of the containers, if the contents are identified to these individuals by a readily available written record. Examples of containers of this type are containers in locations such as water-filled canals, storage vaults, or hot cells. The record shall be retained as long as the containers are in use for the purpose indicated on the record; or
6. Installed manufacturing or process equipment, such as piping and tanks.

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-433. Procedures for Receiving and Opening Packages**

**A.** Each licensee who expects to receive a package containing quantities of radioactive material in excess of a Type A quantity, as defined in 10 CFR 71.4, 1993 Edition, published January 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with Office of the Secretary of State, shall make arrangements to receive:
1. The package when the carrier offers it for delivery; or
2. The notification of the arrival of the package at the carrier's terminal and to take possession of the package expeditiously.

**B.** Each licensee shall:
1. Monitor the external surfaces of a package, labeled with a Radioactive White I, Yellow II, or Yellow III as specified in 49 CFR 172.403 and 172.436 through 172.440, 1992 Edition, published October 1, 1992, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Office of the Secretary of State, for radioactive contamination unless the package contains only radioactive material in the form of gas or in special form as defined in R12-1-102 of these rules; and
2. Monitor the external surfaces of a package, labeled with a Radioactive White I, Yellow II, or Yellow III as specified in 49 CFR 172.403 and 172.436 through 172.440, as referenced in paragraph (B)(1) above, for radiation levels unless the package contains quantities of radioactive material that are less than or equal to the Type A quantity

as defined in 10 CFR 71, referenced in subsection (A) above; and

3. Monitor all packages known to contain radioactive material for radioactive contamination and radiation levels if there is evidence of degradation of package integrity, such as packages that are crushed, wet, or damaged.

**C.** The licensee shall perform the monitoring required by subsection (B) above as soon as practicable after receipt of the package, but not later than 3 hours after the package is received at the licensee's facility if it is received during the licensee's normal working hours, or not later than 3 hours from the next working day if it is received after working hours.

**D.** The licensee shall immediately notify the final delivery carrier and, by telephone and telegram, mailgram, or facsimile, the Agency when:

1. Removable radioactive surface contamination exceeds 22 $dpm/cm^2$ for beta-gamma emitting radionuclides or 2.2 $dpm/cm^2$ for alpha-emitting radionuclides, wiping a minimum surface area of 300 square centimeters (46 square inches), or the entire surface if less than 300 square centimeters (46 square inches); or
2. External radiation levels exceed the limits of 2 millisieverts (200 millirem) per hour.

**E.** Each licensee shall:

1. Establish, maintain, and retain written procedures for safely opening packages in which radioactive material is received, and
2. Ensure that the procedures are followed and that due consideration is given to special instructions for the type of package being opened.

**F.** Licensees transferring special form sources in vehicles owned or operated by the licensee or registrant to and from a work site are exempt from the contamination monitoring requirements of subsection (B) above but are not exempt from the monitoring requirement in subsection (B) above for measuring radiation levels that ensures that the source is still properly lodged in its shield.

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-434. General Requirements for Waste Disposal**

**A.** A licensee shall dispose of licensed material only:

1. By transfer to an authorized recipient as provided in R12-1-439 or in Article 3 of these regulations, or to the U.S. Department of Energy;
2. By decay in storage;
3. By release in effluents within the limits in R12-1-416; or
4. As authorized pursuant to R12-1-435, R12-1-436, R12-1-437, or R12-1-438;

**B.** A person shall be specifically licensed to receive waste containing licensed material from other persons for:

1. Treatment prior to disposal,
2. Treatment or disposal by incineration,
3. Decay in storage,
4. Disposal at a land disposal facility licensed pursuant to Article 3 of these regulations, or
5. Storage until transferred to a storage or disposal facility authorized to receive the waste.

**Historical Note**
Repealed effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-435. Method for Obtaining Approval of Proposed Disposal Procedures**

A licensee or applicant for a license may apply to the Agency for approval of proposed procedures, not otherwise authorized in these regulations, to dispose of licensed material generated in the licensee's operations. Each application shall include:

1. A description of the waste containing licensed material to be disposed of, including the physical and chemical properties that have an impact on risk evaluation, and the proposed manner and conditions of waste disposal;
2. An analysis and evaluation of pertinent information on the nature of the environment;
3. The nature and location of other potentially affected facilities; and
4. Analyses and procedures to ensure that doses are maintained in accordance with R12-1-407(B) and within the dose limits in Article 4.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-436. Disposal by Release into Sanitary Sewerage System**

**A.** A licensee may discharge licensed material into sanitary sewerage if each of the following conditions is satisfied:

1. The material is readily soluble or is readily dispersible biological material, in water;
2. The quantity of licensed radioactive material that the licensee releases into the sewer in 1 month divided by the average monthly volume of water released into the sewer by the licensee or registrant does not exceed the concentration listed in Table III of Appendix B;
3. If more than 1 radionuclide is released, the following conditions shall also be satisfied:
   a. The licensee shall determine the fraction of the limit in Table III of Appendix B represented by discharges into sanitary sewerage by dividing the actual monthly average concentration of each radionuclide released by the licensee or registrant into the sewer by the concentration of that radionuclide listed in Table III of Appendix B; and
   b. The sum of the fractions for each radionuclide required by subparagraph (A)(3)(a) above does not exceed unity; and
   c. The total quantity of licensed radioactive material that the licensee releases into the sanitary sewerage in a year does not exceed 185 GBq (5 Ci) of Hydrogen-3, 37 GBq (1 Ci) of Carbon-14, and 37 GBq (1 Ci) of all other radioactive materials combined.

**B.** Excreta from individuals undergoing medical diagnosis or therapy with radioactive material are not subject to the limitations contained in subsection (A) above.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-437. Treatment or Disposal by Incineration**

A licensee may treat or dispose of licensed material by incineration only in the amounts and forms specified in R12-1-438 or as specifically approved by the Agency pursuant to R12-1-435.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-438. Disposal of Specific Wastes**

**A.** A licensee may dispose of the following licensed material as if it were not radioactive:

1. 1.85 kBq (0.05 µCi), or less, of Hydrogen-3 or Carbon-14 per gram of medium used for liquid scintillation counting; and
2. 1.85 kBq (0. 05 µCi), or less, of Hydrogen-3 or Carbon-14 per gram of animal tissue, averaged over the weight of the entire animal.

**B.** A licensee shall not dispose of tissue pursuant to subsection (A)(2) above in a manner that would permit its use either as food for humans or as animal feed.

**C.** Records. The licensee shall maintain records in accordance with R12-1-441.

**Historical Note**

Adopted effective August 10, 1994 (Supp. 94-3).
Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-439. Transfer for Disposal and Manifests**

**A.** The requirements of this Section are designed to control transfers of low-level radioactive waste intended for disposal at a licensed low-level radioactive waste disposal facility, establish a manifest tracking system, and supplement existing requirements concerning transfers and recordkeeping for those wastes.

**B.** Each shipment of radioactive waste designated for disposal at a licensed low-level radioactive waste disposal facility shall be accompanied by a shipment manifest as specified in paragraph (E)(1) below.

**C.** Each shipment manifest shall include a certification by the waste generator as specified in paragraph (E)(2) below.

**D.** Each person involved in the transfer of waste for disposal or in the disposal of waste, including the waste generator, waste collector, waste processor, and disposal facility operator, shall comply with the requirements specified in paragraph (E)(3) below.

**E.** Requirements for transfer of low-level radioactive waste for disposal at land disposal facilities and manifests:

1. Manifest. The shipment manifest shall contain the name, address, and telephone number of the person generating the waste. The manifest shall also include the name, address, and telephone number or the name and U.S. Environmental Protection Agency hazardous waste identification number of the person transporting the waste to the land disposal facility. The manifest shall also indicate: a physical description of the waste, the volume, radionuclide identity, and quantity, the total radioactivity, and the principal chemical form. The solidification agent shall be specified. Waste containing more than 0.1% chelating agents by weight shall be identified and the weight percentage of the chelating agent estimated. Wastes classified as Class A, Class B, or Class C in Section I of Appendix D shall be clearly identified as such in the manifest. The total quantity of the radionuclides hydrogen-3, carbon-14, technetium-99, and iodine-129 shall be shown. The manifest required by this paragraph may be shipping papers used to meet U.S. Department of Transportation or U.S. Environmental Protection Agency regulations or requirements of the receiver, provided all the required information is included. Copies of manifests required by this Section may be legible carbon copies or legible photocopies.
2. Certification. The waste generator shall include in the shipment manifest a certification that the transported materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation and the Agency. An authorized representative of the waste generator shall sign and date the manifest.
3. Control and Tracking.
   a. Any radioactive waste generator who transfers radioactive waste to a land disposal facility or a licensed waste collector shall comply with the requirements in subdivisions (a)(i) through (viii). Any radioactive waste generator who transfers waste to a licensed waste processor who treats or repackages waste shall comply with the requirements of subdivisions (a)(iv) through (vii). A licensee shall:
      i. Prepare all wastes so that the waste is classified according to Section I of Appendix D and meets the waste characteristics requirements in Section II of Appendix D;
      ii. Label each package of waste to identify whether it is Class A waste, Class B waste, or Class C waste, in accordance with Section I of Appendix D;
      iii. Conduct a quality control program to ensure compliance with Section I and II of Appendix D; the program shall include management evaluation of audits;
      iv. Prepare shipping manifests to meet the requirements of Sections I and II;
      v. Forward a copy of the manifest to the intended recipient, at the time of shipment, or deliver to a collector at the time the waste is collected, obtaining acknowledgment of receipt in the form of a signed copy of the manifest or equivalent documentation from the collector;
      vi. Include 1 copy of the manifest with the shipment;
      vii. Retain a copy of the manifest and documentation of acknowledgment of receipt as the record of transfer of licensed material as required by R12-1-318; and
      viii. For any shipments or any portion of a shipment for which acknowledgment of receipt has not been received within the times set forth in this Section, conduct an investigation in accordance with Section III(e).
   b. Any waste collector licensee who handles only prepackaged waste shall:
      i. Acknowledge receipt of the waste from the generator within 1 week of receipt by returning a signed copy of the manifest or equivalent documentation;
      ii. Prepare a new manifest to reflect consolidated shipments; the new manifest shall serve as a listing or index for the detailed generator manifests. Copies of the generator manifests shall be a part of the new manifest. The waste collector may prepare a new manifest without attaching the generator manifests, provided the new manifest contains for each package the information specified in Section I. The collector licensee shall certify that nothing has been done to the waste that would invalidate the generator's certification;
      iii. Forward a copy of the new manifest to the land disposal facility operator at the time of shipment;
      iv. Include the new manifest with the shipment to the disposal site;

v. Retain a copy of the manifest and documentation of acknowledgment of receipt as the record of transfer of licensed material as required by R12-1-318, and retain information from generator manifest until disposition is authorized by the Agency; and

vi. For any shipments or any portion of a shipment for which acknowledgment of receipt is not received within the times set forth in this Section, conduct an investigation in accordance with Section Ill(e).

c. Any licensed waste processor who treats or repackages wastes shall:

i. Acknowledge receipt of the waste from the generator within 1 week of receipt by returning a signed copy of the manifest or equivalent documentation;

ii. Prepare a new manifest that meets the requirements of Section I and II. Preparation of the new manifest reflects that the processor is responsible for the waste:

iii. Prepare all wastes so that the waste is classified according to Section I of Appendix D and meets the waste characteristics requirements in Section II of Appendix D;

iv. Label each package of waste to identify whether it is Class A waste, Class B waste, or Class C waste, in accordance with Section I and III of Appendix D;

v. Conduct a quality control program to ensure compliance with Section I and II of Appendix D. The program shall include management evaluation of audits;

vi. Forward a copy of the new manifest to the disposal site generator or waste collector at the time of shipment, or deliver to a collector at the time the waste is collected, obtaining acknowledgment of receipt in the form of a signed copy of the manifest or equivalent documentation by the collector;

vii. Include the new manifest with the shipment;

viii. Retain copies of original manifests and new manifests and documentation of acknowledgment of receipt as the record of transfer of licensed material required by R12-1-318; and

ix. For any shipment or portion of a shipment for which acknowledgment is not received within the times set forth in this Section, conduct an investigation in accordance with Section III(e).

d. The land disposal facility operator shall:

i. Acknowledge receipt of the waste within 1 week of receipt by returning a signed copy of the manifest or equivalent documentation to the shipper. The shipper to be notified is the licensee who last possessed the waste and transferred the waste to the operator. The returned copy of the manifest or equivalent documentation shall indicate any discrepancies between materials listed on the manifest and materials received;

ii. Maintain copies of all completed manifests or equivalent documentation until the Agency authorizes their disposition; and

iii. Notify the shipper, that is, the generator, the collector, or processor, and the Agency when any shipment or portion of a shipment has not arrived within 60 days after the advance manifest was received.

e. Any shipment or portion of a shipment for which acknowledgment is not received within the times set forth in this Section shall:

i. Be investigated by the shipper if the shipper has not received notification or receipt within 20 days after transfer; and

ii. Be traced and reported to the shipper. The investigation shall include tracing the shipment and filing a report with the Agency. Each licensee who conducts a trace investigation shall file a written report with the Agency within 2 weeks of completion of the investigation.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-440. Compliance with Environmental and Health Protection Regulations**
Nothing in R12-1-434, R12-1-435, R12-1-436, R12-1-437, R12-1-438, or R12-1-439 relieves the licensee from complying with other applicable federal, state, and local regulations governing any other toxic or hazardous properties of materials that may be disposed of pursuant to R12-1-434, R12-1-435, R12-1-436, R12-1-437, R12-1-438, or R12-1-439.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-441. Records of Waste Disposal**

**A.** Each licensee or registrant shall maintain records of the disposal of licensed or registered materials made pursuant to R12-1-435, R12-1-436, R12-1-437, R12-1-438, and disposal by burial in soil, including burials authorized before February 25, 1985.*

* A previous R12-1-419 permitted burial of small quantities of licensed materials in soil before February 25, 1985, without specific Agency authorization.

**B.** The licensee or registrant shall retain the records required by subsection (A) above for 3 years after the Agency terminates each pertinent license or registration requiring the record.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-442. Agency Inspection of Shipments of Waste**
Each shipment of waste to a disposal facility, licensed under R12-1-1302(D)(11), is subject to inspection by the Agency prior to shipment. The waste shipper shall notify the Agency not less than 5 working days prior to the scheduled shipment of the intent to transport waste to the licensed land disposal facility.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).
Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2).

**R12-1-443. Reports of Stolen, Lost, or Missing Licensed or Registered Sources of Radiation**

**A.** Telephone reports. Each licensee or registrant shall report to the Agency by telephone as follows:

1. Immediately after it becomes known to the licensee that licensed radioactive material in an aggregate quantity equal to or greater than 1,000 times the quantity specified in Appendix C is stolen, lost, or missing under circumstances that it appears to the licensee that an exposure could result to individuals in unrestricted areas;
2. Within 30 days after it becomes known to the licensee that licensed radioactive material in an aggregate quantity

greater than 10 times the quantity identified in Appendix C is stolen, lost, or missing, and is still missing.

3. Immediately after it becomes known to the registrant that a radiation machine is stolen, lost, or missing.

**B.** Written reports. Each licensee or registrant required to make a report pursuant to subsection (A) above shall, within 30 days after making the telephone report, make a written report to the Agency setting forth the following information:

1. A description of the licensed or registered source of radiation involved, including, for radioactive material, the kind, quantity, and chemical and physical form; and, for radiation machines, the manufacturer, model and serial number, type, and maximum energy of radiation emitted;
2. A description of the circumstances under which the loss or theft occurred;
3. A statement of disposition, or probable disposition, of the licensed or registered source of radiation involved;
4. Exposures of individuals to radiation, circumstances under which the exposures occurred, and the possible total effective dose equivalent to persons in unrestricted areas;
5. Actions that have been taken, or will be taken, to recover the source of radiation; and
6. Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed or registered sources of radiation.

**C.** Subsequent to filling the written report, the licensee or registrant shall also report additional substantive information on the loss or theft within 30 days after the licensee or registrant learns of such information.

**D.** The licensee or registrant shall prepare any report filed with the Agency pursuant to this Section so that names of individuals who may have received exposure to radiation are stated in a separate and detachable portion of the report.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-444. Reports of Exposures, Radiation Levels, and Concentrations of Radioactive Material Exceeding the Limits**

**A.** Reportable events. In addition to the notification required by R12-1-445, each licensee or registrant shall submit a written report within 30 days after learning of any of the following occurrences:

1. Incidents for which notification is required by R12-1-445;
2. Doses in excess of any of the following:
   a. The occupational dose limits for adults in R12-1-408;
   b. The occupational dose limits for a minor in R12-1-414;
   c. The limits for an embryo/fetus of a declared pregnant woman in R12-1-415;
   d. The limits for an individual member of the public in R12-1-416; or
   e. Any applicable limit in the license or registration; or
3. Levels of radiation or concentrations of radioactive material in:
   a. A restricted area in excess of applicable limits in the license or registration, or
   b. An unrestricted area in excess of 10 times the applicable limit set forth in Article 4 or in the license or registration, whether or not involving exposure of any individual in excess of the limits in R12-1-416; or
4. For licensees subject to the provisions of U.S. Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190, 1992 Edition, published July 1, 1992, by the Office of the Federal Register, National Archives and Records Administration, incorporated herein by reference and on file with the Office of the Secretary of State, levels of radiation or releases of radioactive material in excess of those standards, or of license conditions related to those standards.

**B.** Contents of reports.

1. Each report required by this Section shall describe the extent of exposure of individuals to radiation and radioactive material, including, as appropriate:
   a. Estimates of each individual's dose;
   b. The levels of radiation and concentrations of radioactive material involved;
   c. The cause of the elevated exposures, dose rates, or concentrations; and
   d. Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits, generally applicable environmental standards, and associated license or registration conditions.
2. Each report filed pursuant to subsection (A) above shall include for each individual exposed: the name, Social Security account number, and date of birth. With respect to the limit for the embryo/fetus in R12-1-415, the identifiers should be those of the declared pregnant woman. The report shall be prepared so that this information is stated in a separate and detachable portion of the report.

**C.** All licensees or registrants who make reports pursuant to subsection (A) above shall submit the report in writing to the Agency.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-445. Notification of Incidents**

**A.** Immediate notification. Notwithstanding other requirements for notification, each licensee or registrant shall immediately report each event involving a source of radiation possessed by the licensee or registrant that may have caused or threatens to cause any of the following conditions:

1. An individual to receive:
   a. A total effective dose equivalent of 0.25 Sv (25 rem) or more;
   b. An eye dose equivalent of 0.75 Sv (75 rem) or more; or
   c. A shallow dose equivalent to the skin or extremities or a total organ dose equivalent of 2.5 Gy (250 rad) or more; or
2. The release of radioactive material, inside or outside of a restricted area, so that, had an individual been present for 24 hours, the individual could have received an intake 5 times the occupational ALI. This provision does not apply to locations where personnel are not normally stationed during routine operations, such as hot-cells or process enclosures.
3. If the Agency's phone does not answer within 3 minutes, the Duty Officer of the Arizona Department of Public Safety is to be called and advised, "This is a radiation emergency notification" and ask to contact the Radiation Regulatory Agency's Duty Officer. The caller shall identify him or herself and the licensee or registrant, state the location of the incident, and give a phone number at which the caller can be reached.

**B.** Twenty-four hour notification. Each licensee or registrant shall, within 24 hours of discovery of the event, report to the Agency each event involving loss of control of a licensed or

registered source of radiation possessed by the licensee or registrant that may have caused, or threatens to cause, any of the following conditions:

1. An individual to receive, in a period of 24 hours:
   a. A total effective dose equivalent exceeding 0.05 Sv (5 rem);
   b. An eye dose equivalent exceeding 0.15 Sv (I 5 rem); or
   c. A shallow dose equivalent to the skin or extremities or a total organ dose equivalent exceeding 0.5 Sv (50 rem), or
2. The release of radioactive material, inside or outside of a restricted area, so that, had an individual been present for 24 hours, the individual could have received an intake in excess of 1 occupational ALI. This provision does not apply to locations where personnel are not normally stationed during routine operations, such as hot-cells or process enclosures.

**C.** The licensee or registrant shall prepare each report filed with the Agency pursuant to this Section so that names of individuals who have received exposure to sources of radiation are stated in a separate and detachable portion of the report.

**D.** Licensees or registrants shall make the reports required by subsections (A) and (B) above to the Agency by telephone, telegram, mailgram, or facsimile.

**E.** The provisions of this Section do not apply to doses that result from planned special exposures, provided such doses are within the limits for planned special exposures and are reported pursuant to R12-1-413.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-446. Notifications and Reports to Individuals**

**A.** Requirements for notification and reports to individuals of exposure to radiation or radioactive material are specified in R12-1-1004 of these regulations.

**B.** When a licensee or registrant is required, pursuant to R12-1-445, to report to the Agency any exposure of an individual to radiation or radioactive material, the licensee or registrant shall also notify the individual. Such notice shall be transmitted at a time not later than the transmittal to the Agency and shall comply with the provisions of R12-1-1004(A) of these regulations.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-447. Vacating Premises**

Each specific licensee shall, no less than 45 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a result of his activities, notify the Agency in writing of intent to vacate. When deemed necessary by the Agency, the licensee shall decontaminate the premises in such a manner as the Agency may specify.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-448. Additional Reporting Requirements**

**A.** Each licensee shall notify the Agency immediately, not later than 4 hours after the discovery of an event, and take immediate protective actions necessary to avoid exposures to radiation or radioactive materials that could exceed the limits specified in this Chapter or releases of licensed material that could exceed the limits specified in this Chapter. For purposes of this Section, event means a radiation accident involving a fire, explosion, gas release, or similar occurrence.

**B.** Each licensee shall notify the Agency within 24 hours after the discovery of any of the following events involving licensed material:

1. A contamination event that:
   a. Requires access to the contaminated area, by workers or the public, being restricted for more than 24 hours by the imposition of additional radiological controls to prohibit entry into the area; and
   b. Involves a quantity of radioactive material greater than 5 times the lowest annual limit on intake specified in Appendix B of this Article; and
   c. Results in access to the contaminated area being restricted for a reason other than to allow radionuclides with a half-life of less than 24 hours to decay prior to decontamination.
2. An event in which equipment is disabled or fails to function as designed when;
   a. The equipment is part of a system designed to prevent releases exceeding the limits specified in this Chapter, to prevent exposures to radiation and radioactive materials exceeding limits specified in this Chapter, or to mitigate the consequences of an accident; and
   b. The equipment performs a safety function; and
   c. No redundant equipment is available and operable to perform the required safety function.
3. An event that requires urgent medical treatment of an individual with radioactive contamination on the individual's clothing or body.
4. A fire or explosion damaging any licensed material or any device, container, or equipment containing licensed material when;
   a. The quantity of material involved is greater than 5 times the lowest annual limit on intake specified in Appendix B of this Article; and
   b. The damage affects the integrity of the licensed material or its container.

**C.** Each licensee shall make reports required by subsections (A) and (B) above by telephone to the Agency. To the extent that the information is available at the time of notification, the information provided in these reports shall include:

1. The callers's name and call back telephone number;
2. A description of the event, including date and time;
3. The exact location of the event;
4. The isotopes, quantities, and chemical and physical form of the licensed material involved; and
5. Any personnel radiation exposure data available.

**D.** Each licensee who makes a report required by subsection (A) or (B) above shall submit a written follow-up report within 30 days of the initial report. Written reports prepared pursuant to other rules may be submitted to fulfill this requirement if the reports contain all of the required information in this Section. The licensee shall send the written report to the Agency. The report shall include the following:

1. A description of the event, including the probable cause and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;
2. The exact location of the event;
3. The isotopes, quantities, and chemical and physical form of the licensed material involved;
4. Date and time of the event;
5. Corrective actions taken or planned and the results of any evaluations or assessments; and
6. The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

**Historical Note**
Adopted effective June 13, 1997 (Supp. 97-2).

**R12-1-449. Survey Instruments**

**A**. Each licensee or registrant shall ensure that survey instruments used to show compliance with this Article have been calibrated before first use, annually, and following repair, unless otherwise specified in this Chapter.

**B.** To satisfy the requirements of subsection (A), the licensee or registrant shall:
1. For each scale to be calibrated, calibrate 2 readings separated by at least 50 percent of scale rating; and
2. Conspicuously note on the instrument the apparent radiation level, in appropriate units for the type of survey instrument being used and the date of calibration.

**C.** Each licensee or registrant shall check each survey instrument for proper operation with the dedicated check source after calibration and before each use.

**D.** The licensee or registrant shall retain a record of each calibration required in subsection (A) for 3 years. The record shall include:
1. A description of the calibration procedure; and
2. A description of the source used, the certified dose rates from the source, the rates indicated by the instrument being calibrated, the correction factors deduced from the calibration data, the signature of the individual who performed the calibration, and the date of calibration.

**E.** To meet the requirements of subsections (A),(B), and (C), the licensee or registrant may obtain the services of persons licensed or registered by the Agency, the NRC, an Agreement State, or a Licensing State to perform calibrations of survey instruments. Licensing records of the service person authorization shall be maintained for 3 years by the licensee or registrant obtaining the service.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-450. Sealed Source Requirements**

**A.** Any licensee who possesses and uses sealed sources containing radioactive material shall follow the radiation safety and handling instructions approved by the Agency; or follow the radiation safety and handling instructions furnished by the manufacturer on the label attached to the source, on the permanent container of the sources or in the leaflet or brochure that accompanies the source, and maintain the instructions in a legible and conveniently available form. If the handling instructions, leaflet, or brochure is no longer available or a copy cannot be obtained from the manufacturer, the licensee shall notify the Agency that the source information is no longer available.

**B.** Any licensee who possesses and uses calibration and reference sources shall, unless otherwise specified, conduct a physical inventory, at intervals not to exceed 6 months, to account for all sealed sources of radioactive material received and possessed under a radioactive material license. The records of the inventory shall be maintained for 3 years from the date of the inventory, and shall be available for inspection by the Agency. The information recorded shall include the kind and quantity of radioactive material, the model and serial number of the source or the device in which it is mounted, the location of the sealed source, the date of the inventory, and the signature of the person performing the inventory.

**C.** Any licensee who possesses and uses sealed sources in the practice of medicine shall conduct a physical inventory according to the requirements in 12 A.A.C. 1, Article 7.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

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**Appendix A. Protection Factors for Respirators[1]**

| Tested & Certified Equipment Description[2] | Modes[3] | Protection Factors[4] Particulates only | Particulates gases, & vapors[5] | National Institute for Occupational Safety and Health/Mine Safety and Health Administration tests for permissibility |
|---|---|---|---|---|
| I. AIR-PURIFYING RESPIRATORS[6] | | | | |
| Facepiece, half-mask[7] | NP | 10 | | 30 CFR 11, |
| Facepiece, full | NP | 50 | | Subpart K. |
| Facepiece, half-mask full or hood | PP | 1,000 | | |
| II. ATMOSPHERE-SUPPLYING RESPIRATORS | | | | |
| 1. Air-line respirator | | | | |
| Facepiece, half-mask | CF | 1,000 | | |
| Facepiece, half-mask | D | 5 | | |
| Facepiece, full | CF | 2,000 | | |
| Facepiece, full | D | 5 | | 30 CFR 11, |
| Facepiece, full | PD | 2,000 | | Subpart J. |
| Hood | CF | [8] | | |
| Suit | CF | [9] | [10] | |
| 2. Self-contained breathing apparatus (SCBA) | | | | |
| Facepiece, full | D | 50 | | |
| Facepiece, full | PD | 10,000[11] | | 30 CFR 11, |
| Facepiece, full | RD | 50 | | Subpart H. |

| | | | |
|---|---|---|---|
| Facepiece, full | RP | 5,000[12] | |
| III. COMBINATION RESPIRATORS | | | |
| Any combination of air-purifying and atmosphere-supplying respirators | Protection factor for type and mode of operation as listed above | | 30 CFR 11, Sec. 11.63(b). |

FOOTNOTES TO APPENDIX A

1. For use in the selection of respiratory protective equipment to be used only where the contaminants have been identified and the concentrations, or possible concentrations, are known.
2. Only for shaven faces and where nothing interferes with the seal of tight-fitting facepieces against the skin. Hoods and suits are excepted.
3. The mode symbols are defined as follows:
   CF = continuous flow
   D = demand
   NP = negative pressure, that is, negative phase during inhalation
   PD = pressure demand, that is, always positive pressure
   PP = positive pressure
   RD = demand, recirculating or closed circuit
   RP = pressure demand, recirculating or closed circuit
4.
   a. The protection factor is a measure of the degree of protection afforded by a respirator, defined as the ratio of the concentration of airborne radioactive material outside the respiratory protective equipment to that inside the equipment, usually inside the facepiece, under conditions of use. It is applied to the ambient airborne concentration to estimate the concentrations inhaled by the wearer according to the following formula:
      Concentration inhaled = Ambient airborne concentration Protection factor
   b. The protection factors apply:
      (i) Only for individuals trained in using respirators and wearing properly fitted respirators that are used and maintained under supervision in a well-planned respiratory protective program.
      (ii) For air-purifying respirators only when high efficiency particulate filters, above 99.97% removal efficiency by thermally generated 0.3 μm dioctyl phthalate (DOP) test or equivalent, are used in atmospheres not deficient in oxygen and not containing radioactive gas or vapor respiratory hazards.
      (iii) No adjustment is to be made for the use of sorbents against radioactive material in the form of gases or vapors.
      (iv) For atmosphere-supplying respirators only when supplied with adequate respirable air. Respirable air shall be provided of the quality and quantity required in accordance with the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration certification described in 30 CFR 11. Oxygen and air shall not be used in the same apparatus.
5. Excluding radioactive contaminants that present an absorption or submersion hazard. For tritium oxide, approximately one-third of the intake occurs by absorption through the skin so that an overall protection factor of less than 2 is appropriate when atmosphere-supplying respirators are used to protect against tritium oxide. If the protection factor for respiratory protective equipment is 5, the effective protection factor for tritium is about 1.4; with protection factors of 10, the effective factor for tritium oxide is about 1.7; and with protection factors of 100 or more, the effective factor for tritium oxide is about 1.9. Air-purifying respirators are not suitable for protection against tritium oxide. See also footnote 9 concerning supplied-air suits.
6. Canisters and cartridges shall not be used beyond service-life limitations.
7. Under-chin type only. This type of respirator is not satisfactory for use where it might be possible, such as, if an accident or emergency were to occur, for the ambient airborne concentrations to reach instantaneous values greater than 10 times the pertinent values in Table I, Column 3 of Appendix B of Article 4. This type of respirator is not suitable for protection against plutonium or other high-toxicity materials. The mask is to be tested for fit prior to use, each time it is donned.
8.
   a. Equipment shall be operated in a manner that ensures that proper air flow-rates are maintained. A protection factor of no more than 1,000 may be utilized for tested and certified supplied air hoods when a minimum air flow of 6 cubic feet per minute (0.17 $m^3$ / min) is maintained and calibrated air line pressure gauges or flow-measuring devices are used. A protection factor of up to 2,000 may be used for tested and certified hoods only when the air flow is maintained at the manufacturer's recommended maximum rate for the equipment; this rate is greater than 6 cubic feet per minute (0.17 $m^3$ /min) and calibrated air line pressure gauges or flow-measuring devices are used.
   b. The design of the supplied-air hood or helmet, with a minimum flow of 6 cubic feet per minute (0.17 $m^3$ /min) of air, may determine its overall efficiency and the protection it provides. For example, some hoods aspirate contaminated air into the breathing zone when the wearer works with hands over head. This aspiration may be overcome if a short cape-like extension to the hood is worn under a coat or overalls. Other limitations specified by the approval agency shall be considered before using a hood in certain types of atmospheres. See footnote 9.
9. Appropriate protection factors shall be determined, taking into account the design of the suit and its permeability to the contaminant under conditions of use. There shall be a standby rescue person equipped with a respirator or other apparatus appropriate for the potential hazards and communications equipment whenever supplied-air suits are used.

10. No approval schedules are currently available for this equipment. Equipment is to be evaluated by testing or on the basis of reliable test information.
11. This type of respirator may provide greater protection and be used as an emergency device in unknown concentrations for protection against inhalation hazards. External radiation hazards and other limitations to permitted exposure, such as skin absorption, shall be taken into account in such circumstances.
12. Quantitative fit testing shall be performed on each individual, and no more than 0.02% leakage is allowed with this type of apparatus. Perceptible outward leakage of gas from this or any positive pressure, self-contained breathing apparatus is unacceptable because service life will be reduced substantially. Special training in the use of this type of apparatus shall be provided to the wearer.

Note 1: Protection factors for respirators approved by the U.S. Bureau of Mines and the National Institute for Occupational Safety and Health, according to applicable approvals for respirators for type and mode of use to protect against airborne radionuclides, may be used to the extent that they do not exceed the protection factors listed in this table. The protection factors listed in this table may not be appropriate to circumstances where chemical or other respiratory hazards exist in addition to radioactive hazards. The selection and use of respirators for such circumstances should take into account applicable approvals of the U.S. Bureau of Mines and the National Institute for Occupational Safety and Health.

Note 2: Radioactive contaminants, for which the concentration values in Table I, Column 3 of Appendix B of Article 4 are based on internal dose due to inhalation, may present external exposure hazards at higher concentrations. Under these circumstances, limitations on occupancy may have to be governed by external dose limits.

**Historical Note**

Former Appendix A repealed, new Appendix A adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**Appendix B. Annual Limits on Intake (ALI) and Derived Air Concentrations (DAC) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sanitary Sewerage**

Introduction
For each radionuclide, Table I indicates the chemical form which is to be used for selecting the appropriate ALI or DAC value. The ALls and DACs for inhalation are given for an aerosol with an activity median aerodynamic diameter (AMAD) of 1 μm, micron, and for 3 classes (D,W,Y) of radioactive material, which refer to their retention (approximately days, weeks, or years) in the pulmonary region of the lung. This classification applies to a range of clearance half-times for D if less than 10 days, for W from 10 to 100 days, and for Y greater than 100 days. Table II provides concentration limits for airborne and liquid effluents released to the general environment. Table III provides concentration limits for discharges to sanitary sewerage.

Note:
The values in Tables I, II, and III are presented in the computer "E" notation. In this notation a value of 6E-02 represents a value of 6 x $10^{-2}$ or 0.06, 6E+2 represents 6 x $10^{2}$ or 600, and 6E+0 represents 6 x $10^{0}$ or 6.

Table I "Occupational Values"
Note that the columns in Table I of this Appendix captioned "Oral Ingestion ALI", "Inhalation ALI", and "DAC" are applicable to occupational exposure to radioactive material.

The ALIs in this Appendix are the annual intakes of given radionuclide by "Reference Man" which would result in either (1) a committed effective dose equivalent of 0.05 Sv (5 rem), stochastic ALI, or (2) a committed dose equivalent of 0.5 Sv (50 rem) to an organ or tissue, nonstochastic ALI. The stochastic ALIs were derived to result in a risk, due to irradiation of organs and tissues, comparable to the risk associated with deep-dose equivalent to the whole body of 0.05 Sv (5 rem). The derivation includes multiplying the committed dose equivalent to an organ or tissue by a weighting factor, $W_T$. This weighting factor is the proportion of the risk of stochastic effects resulting from irradiation of the organ or tissue, T, to the total risk of stochastic effects when the whole body is irradiated uniformly. The values of $W_T$ are listed under the definition of weighting factor in R12-1-403. The nonstochastic ALIs were derived to avoid nonstochastic effects, such as prompt damage to tissue or reduction in organ function.

A value of $W_T = 0.06$ is applicable to each of the 5 organs or tissues in the "remainder" category receiving the highest dose equivalents, and the dose equivalents of all other remaining tissues may be disregarded. The following portions of the GI tract -- stomach, small intestine, upper large intestine, and lower large intestine -- are to be treated as 4 separate organs.

Note that the dose equivalents for an extremity, skin, and lens of the eye are not considered in computing the committed effective dose equivalent but are subject to limits that shall be met separately.

When an ALI is defined by the stochastic dose limit, this value alone is given. When an ALI is determined by the nonstochastic dose limit to an organ, the organ or tissue to which the limit applies is shown, and the ALI for the stochastic limit is shown in parentheses. Abbreviated organ or tissue designations are used:

| | | |
|---|---|---|
| LLI wall | = | lower large intestine wall, |
| St. wall | = | stomach wall, |
| Blad wall | = | bladder wall, and |
| Bone surf | = | Bone surface. |

The use of the ALIs listed first, the more limiting of the stochastic and nonstochastic ALIs, will ensure that nonstochastic effects are avoided and that the risk of stochastic effects is limited to an acceptably low value. If, in a particular situation involving a radionuclide for which the nonstochastic ALI is limiting, use of that nonstochastic ALI is considered unduly conservative, the licensee may use the stochastic ALI to determine the committed effective dose equivalent. However, the licensee shall also ensure that the 0.5 Sv (50 rem) dose equivalent limit for any organ or tissue is not exceeded by the sum of the external deep-dose equivalent plus the internal committed dose equivalent to that organ, not the effective dose. For the case where there is no external dose contribution, this would be demonstrated if the sum of the fractions of the nonstochastic ALIs ($ALI_{ns}$) that contribute to the committed dose equivalent to the organ receiving the highest dose does not exceed unity, that is, $\Sigma$ (intake (in μCi) of each radionuclide/$ALI_{ns}$) ≤ 1.0. If there is an external deep dose equivalent contribution of $H_d$, then this sum must be less than 1 - ($H_d$/50), instead of ≤ 1.0.

Note that the dose equivalents for an extremity, skin, and lens of the eye are not considered in computing the committed effective dose equivalent but are subject to limits that must be met separately.

The derived air concentration (DAC) values are derived limits intended to control chronic occupational exposures. The relationship between the DAC and the ALI is given by:

DAC = ALI(in μCi)/(2000 hours per working year x 60 minutes/hour x 2 x $10^4$ ml per minute) = [ALI/2.4 x $10^9$] μCi/ml,

where 2 x $10^4$ ml is the volume of air breathed per minute at work by Reference Man under working conditions of light work.

The DAC values relate to 1 of 2 modes of exposure: either external submersion or the internal committed dose equivalents resulting from inhalation of radioactive materials. DACs based upon submersion are for immersion in a semi-infinite cloud of uniform concentration and apply to each radionuclide separately.

The ALI and DAC values include contributions to exposure by the single radionuclide named and any in-growth of daughter radionuclides produced in the body by decay of the parent. However, intakes that include both the parent and daughter radionuclides shall be treated by the general method appropriate for mixtures.

The values of ALI and DAC do not apply directly when the individual both ingests and inhales a radionuclide, when the individual is exposed to a mixture of radionuclides by either inhalation or ingestion or both, or when the individual is exposed to both internal and external irradiation. See R12-1-407. When an individual is exposed to radioactive materials which fall under several of the translocation classifications of the same radionuclide, such as Class D, Class W, or Class Y, the exposure may be evaluated as if it were a mixture of different radionuclides.

It should be noted that the classification of a compound as Class D, W, or Y is based on the chemical form of the compound and does not take into account the radiological half-life of different radionuclides. For this reason, values are given for Class D, W, and Y compounds, even for very short-lived radionuclides.

Table II "Effluent Concentrations"
The columns in Table II of this Appendix captioned "Effluents", "Air", and "Water" are applicable to the assessment and control of dose to the public, particularly in the implementation of the provisions of R12-1-415. The concentration values given in

Columns 1 and 2 of Table II are equivalent to the radionuclide concentrations which, if inhaled or ingested continuously over the course of a year, would produce a total effective dose equivalent of 0.5 mSv (0.05 rem).

Consideration of nonstochastic limits has not been included in deriving the air and water effluent concentration limits because nonstochastic effects are presumed not to occur at or below the dose levels established for individual members of the public. For radionuclides, where the nonstochastic limit was governing in deriving the occupational DAC, the stochastic ALI was used in deriving the corresponding airborne effluent limit in Table II. For this reason, the DAC and airborne effluent limits are not always proportional as they were in earlier versions of Appendix A of Article 4.

The air concentration values listed in Table II, Column 1 were derived by 1 of 2 methods. For those radionuclides for which the stochastic limit is governing, the occupational stochastic inhalation ALI was divided by $2.4 \times 10^9$, relating the inhalation ALI to the DAC, as explained above, and then divided by a factor of 300. The factor of 300 includes the following components: a factor of 50 to relate the 0.05 Sv (5 rem) annual occupational dose limit to the 0.1 rem limit for members of the public, a factor of 3 to adjust for the difference in exposure time and the inhalation rate for a worker and that for members of the public; and a factor of 2 to adjust the occupational values, derived for adults, so that they are applicable to other age groups.

For those radionuclides for which submersion, that is external dose, is limiting, the occupational DAC in Table I, Column 3 was divided by 219. The factor of 219 is composed of a factor of 50, as described above, and a factor of 4.38 relating occupational exposure for 2,000 hours per year to full-time exposure (8,760 hours per year). Note that an additional factor of 2 for age considerations is not warranted in the submersion case.

The water concentrations were derived by taking the most restrictive occupational stochastic oral ingestion ALI and dividing by $7.3 \times 10^7$. The factor of $7.3 \times 10^7$ (ml) includes the following components: the factors of 50 and 2 described above and a factor of $7.3 \times 10^5$ (ml) which is the annual water intake of Reference Man.

Note 2 of this Appendix provides groupings of radionuclides which are applicable to unknown mixtures of radionuclides. These groupings, including occupational inhalation ALIs and DACS, air and water effluent concentrations, and releases to sewer, require demonstrating that the most limiting radionuclides in successive classes are absent. The limit for the unknown mixture is defined when the presence of 1 of the listed radionuclides cannot be definitely excluded as being present either from knowledge of the radionuclide composition of the source or from actual measurements.

Table III “Releases to Sewers”
The monthly average concentrations for release to sanitary sewerage are applicable to the provisions in R12-1-435. The concentration values were derived by taking the most restrictive occupational stochastic oral ingestion ALI and dividing by $7.3 \times 10^6$ (ml). The factor of $7.3 \times 10^6$ (ml) is composed of a factor of $7.3 \times 10^5$ (ml), the annual water intake by Reference Man, and a factor of 10, such that the concentrations, if the sewage released by the licensee were the only source of water ingested by a Reference Man during a year, would result in a committed effective dose equivalent of 0.5 rem.

**LIST OF ELEMENTS**

| Name | Symbol | Atomic Number | Name | Symbol | Atomic Number |
|---|---|---|---|---|---|
| Actinium | Ac | 89 | Mendelevium | Md | 101 |
| Aluminum | Al | 13 | Mercury | Hg | 80 |
| Americium | Am | 95 | Molybdenum | Mo | 42 |
| Antimony | Sb | 51 | Neodymium | Nd | 60 |
| Argon | Ar | 18 | Neptunium | Np | 93 |
| Arsenic | As | 33 | Nickel | Ni | 28 |
| Astatine | At | 85 | Niobium | Nb | 41 |
| Barium | Ba | 56 | Osmium | Os | 76 |
| Berkelium | Bk | 97 | Palladium | Pd | 46 |
| Beryllium | Be | 4 | Phosphorus | P | 15 |
| Bismuth | Bi | 83 | Platinum | Pt | 78 |
| Bromine | Br | 35 | Plutonium | Pu | 94 |
| Cadmium | Cd | 48 | Polonium | Po | 84 |
| Calcium | Ca | 20 | Potassium | K | 19 |
| Californium | Cf | 98 | Praseodymium | Pr | 59 |
| Carbon | C | 6 | Promethium | Pm | 61 |
| Cerium | Ce | 58 | Protactinium | Pa | 91 |
| Cesium | Cs | 55 | Radium | Ra | 88 |
| Chlorine | Cl | 17 | Radon | Rn | 86 |
| Chromium | Cr | 24 | Rhenium | Re | 75 |
| Cobalt | Co | 27 | Rhodium | Rh | 45 |
| Copper | Cu | 29 | Rubidium | Rb | 37 |
| Curium | Cm | 96 | Ruthenium | Ru | 44 |
| Dysprosium | Dy | 66 | Samarium | Sm | 62 |
| Einsteinium | Es | 99 | Scandium | Sc | 21 |
| Erbium | Er | 68 | Selenium | Se | 34 |
| Europium | Eu | 63 | Silicon | Si | 14 |
| Fermium | Fm | 100 | Silver | Ag | 47 |
| Fluorine | F | 9 | Sodium | Na | 11 |
| Francium | Fr | 87 | Strontium | Sr | 38 |
| Gadolinium | Gd | 64 | Sulfur | S | 16 |
| Gallium | Ga | 31 | Tantalum | Ta | 73 |
| Germanium | Ge | 32 | Technetium | Tc | 43 |
| Gold | Au | 79 | Tellurium | Te | 52 |
| Hafnium | Hf | 72 | Terbium | Tb | 65 |
| Holmium | Ho | 67 | Thallium | Tl | 81 |
| Hydrogen | H | 1 | Thorium | Th | 90 |
| Indium | In | 49 | Thulium | Tm | 69 |
| Iodine | I | 53 | Tin | Sn | 50 |
| Iridium | Ir | 77 | Titanium | Ti | 22 |
| Iron | Fe | 26 | Tungsten | W | 74 |
| Krypton | Kr | 36 | Uranium | U | 92 |
| Lanthanum | La | 57 | Vanadium | V | 23 |
| Lead | Pb | 82 | Xenon | Xe | 54 |
| Lutetium | Lu | 71 | Ytterbium | Yb | 70 |
| Magnesium | Mg | 12 | Yttrium | Y | 39 |
| Manganese | Mn | 25 | Zinc | Zn | 30 |
| | | | Zirconium | Zr | 40 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I: Col. 2 Inhalation ALI (μCi) | Table I: Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 1 | Hydrogen-3 | Water, DAC includes skin absorption | 8E+4 | 8E+4 | 2E-5 | 1E-7 | 1E-3 | 1E-2 |
| | | Gas (HT or $T_2$) Submersion[1]: Use above values as HT and $T_2$ oxidize in air and in the body to HTO. | | | | | | |
| 4 | Beryllium-7 | W, all compounds except those given for Y | 4E+4 | 2E+4 | 9E-6 | 3E-8 | 6E-4 | 6E-3 |
| | | Y, oxides, halides, and nitrates | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 4 | Beryllium-10 | W, see $^{7}$Be | 1E+3 | 2E+2 | 6E-8 | 2E-10 | - | -- |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{7}$Be | - | 1E+1 | 6E-9 | 2E-11 | - | - |
| 6 | Carbon-11[2] | Monoxide | - | 1E+6 | 5E-4 | 2E-6 | - | - |
| | | Dioxide | - | 6E+5 | 3E-4 | 9E-7 | - | - |
| | | Compounds | 4E+5 | 4E+ 5 | 2E-4 | 6E-7 | 6E-3 | 6E-2 |
| 6 | Carbon-14 | Monoxide | - | 2E+6 | 7E-4 | 2E-6 | - | - |
| | | Dioxide | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | Compounds | 2E+3 | 2E+3 | 1E-6 | 3E-9 | 3E-5 | 3E-4 |
| 9 | Fluorine-18[2] | D, fluorides of H, Li, Na, K, Rb, Cs, and Fr | 5E+4 | 7E+4 | 3E-5 | 1E-7 | - | - |
| | | | St wall (5E+4) | - | - | - | 7E-4 | 7E-3 |
| | | W, fluorides of Be, Mg, Ca, Sr, Ba, Ra, Al, Ga, In, Tl, As, Sb, Bi, Fe, Ru, Os, Co, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, Sc, Y, Ti, Zr, V, Nb, Ta, Mn, Tc, and Re | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| | | Y, Lanthanum fluoride | - | 8E+-4 | 3E-5 | 1E-7 | - | - |
| 11 | Sodium-22 | D, all compounds | 4E+2 | 6E+2 | 3E-7 | 9E-10 | 6E-6 | 6E-5 |
| 11 | Sodium-24 | D, all compounds | 4E+3 | 5E+3 | 2E-6 | 7E-9 | 5E-5 | 5E-4 |
| 12 | Magnesium-28 | D, all compounds except those given for W | 7E+2 | 2E+3 | 7E-7 | 2E-9 | 9E-6 | 9E-5 |
| | | W, oxides, hydroxides, carbides, halides, and nitrates | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 13 | Aluminum-26 | D, all compounds except those given for W | 4E+2 | 6E+1 | 3E-8 | 9E-11 | 6E-6 | 6E-5 |
| | | W, oxides, hydroxides, carbides, halides, and nitrates | - | 9E+1 | 4E-8 | 1E-10 | - | - |
| 14 | Silicon-31 | D, all compounds except those given for W and Y | 9E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| | | W, oxides, hydroxides, carbides, and nitrates | - | 3E+4 | 1E-5 | 5E-8 | - | - |
| | | Y, aluminosilicate glass | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 14 | Silicon-32 | D. see $^{31}$Si | 2E+3 | 2E+2 | 1E-7 | 3E-10 | - | - |
| | | | LLI wall (3E+3) | - | - | - | 4E-5 | 4E-4 |
| | | W, see $^{31}$Si | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| | | Y, see $^{31}$Si | - | 5E+0 | 2E-9 | 7E-12 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 15 | Phosphorus-32 | D, all compounds except phosphates given for W | 6E+2 | 9E+2 | 4E-7 | 1E-9 | 9E-6 | 9E-5 |
| | | W, phosphates of $Zn^{2+}$, $S^{3+}$, $Mg^{2+}$, $Fe^{3+}$, $Bi^{3+}$, and Lanthanides | - | 4E+2 | 2E-7 | 5E-10 | - | - |
| 15 | Phosphorus-33 | D, see $^{32}P$ | 6E+3 | 8E+3 | 4E-6 | 1E-8 | 8E-5 | 8E-4 |
| | | W, see $^{32}P$ | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 16 | Sulfur-35 | Vapor | 1E+4 | 6E-6 | 2E-8 | - | - | |
| | | D, sulfides and sulfates except those given for W | 1E+4 | 2E+4 | 7E-6 | 2E-8 | - | - |
| | | | LLI wall (8E+3) | - | - | - | 1E-4 | 1E-3 |
| | | W, elemental sulfur, sulfides of Sr, Ba, Ge, Sn, Pb, As, Sb, Bi, Cu, Ag, Au, Zn, Cd, Hg, W, and Mo. Sulfates of Ca, Sr, Ba, Ra, As, Sb, and Bi | 6E+3 - | 2E+3 | 9E-7 | 3E-9 | - | - |
| 17 | Chlorine-36 | D, chlorides of H, Li, Na, K, Rb, Cs, and Fr | 2E+3 | 2E+3 | 1E-6 | 3E-9 | 2E-5 | 2E-4 |
| | | W, chlorides of Lanthanides, Be, Mg, Ca, Sr, Ba, Ra, Al, Ga, In, Tl, Ge, Sn, Pb, As, Sb, Bi, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, Sc, Y, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Tc, and Re | - | 2E+2 | 1E-7 | 3E-10- | - | |
| 17 | Chlorine-38[2] | D, see $^{36}Cl$ | 2E+4 | 4E+4 | 2E-5 | 6E-8- | - | |
| | | | St wall (3E+4) | - | - | -3E-4 | 3E-3 | |
| | | W, see $^{36}Cl$ | - | 5E+4 | 2E-5 | 6E-8- | - | |
| 17 | Chlorine-39[2] | D, see $^{36}Cl$ | 2E+4 | 5E+4 | 2E-5 | 7E-8- | | - |
| | | | St wall (4E+4) | - | - | -5E-4 | 5E-3 | |
| | | W, see $^{36}Cl$ | - | 6E+4 | 2E-5 | 8E-8- | - | |
| 18 | Argon-37 | Submersion[1] | - | - | 1E+0 | 6E-3- | - | |
| 18 | Argon-39 | Submersion[1] | - | - | 2E-4 | 8E-7- | - | |
| 18 | Argon-41 | Submersion[1] | - | - | 3E-6 | 1E-8- | - | |
| 19 | Potassium-40 | D, all compounds | 3E+2 | 4E+2 | 2E-7 | 6E-10 | 4E-6 | 4E-5 |
| 19 | Potassium-42 | D, all compounds | 5E+3 | 5E+3 | 2E-6 | 7E-9 | 6E-5 | 6E-4 |
| 19 | Potassium-43 | D, all compounds | 6E+3 | 9E+3 | 4E-6 | 1E-8 | 9E-5 | 9E-4 |
| 19 | Potassium-44[2] | D, all compounds | 2E+4 | 7E+4 | 3E-5 | 9E-8 | - | - |
| | | | St wall (4E+4) | - | - | - | 5E-4 | 5E-3 |
| 19 | Potassium-45[2] | D, all compounds | 3E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | | St watt (5E+4) | - | - | - | 7E-4 | 7E-3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 20 | Calcium-41 | W, all compounds | 3E+3 | 4E+3 | 2E-6 | - | - | - |
| | | | Bone surf (4E+3) | Bone surf (4E+3) | - | 5E-9 | 6E-5 | 6E-4 |
| 20 | Calcium-45 | W, all compounds | 2E+3 | 8E+2 | 4E-7 | 1E-9 | 2E-5 | 2E-4 |
| 20 | Calcium-47 | W, all compounds | 8E+2 | 9E+2 | 4E-7 | 1E-9 | 1E-5 | 1E-4 |
| 21 | Scandium-43 | Y, all compounds | 7E+3 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| 21 | Scandium-44m | Y, all compounds | 5E+2 | 7E+2 | 3E-7 | 1E-9 | 7E-6 | 7E-5 |
| 21 | Scandium-44 | Y, all compounds | 4E+3 | 1E+4 | 5E-6 | 2E-8 | 5E-5 | 5E-4 |
| 21 | Scandium-46 | Y, all compounds | 9E+2 | 2E+2 | 1E-7 | 3E-10 | 1E-5 | 1E-4 |
| 21 | Scandium-47 | Y, all compounds | 2E+3 | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | | LLI wall (3E+3) | - | - | - | 4E-5 | 4E-4 |
| 21 | Scandium-48 | Y, all compounds | 8E+2 | 1E+3 | 6E-7 | 2E-9 | 1E-5 | 1E-4 |
| 21 | Scandium-49[2] | Y, all compounds | 2E+4 | 5E+4 | 2E-5 | 8E-8 | 3E-4 | 3E-3 |
| 22 | Titanium-44 | D, all compounds except those given for W and Y | 3E+2 | 1E+1 | 5E-9 | 2E-11 | 4E-6 | 4E-5 |
| | | W, oxides, hydroxides, carbides, halides, and nitrates | - | 3E+1 | 1E-8 | 4E-11 | - | - |
| | | Y, SrTiO | - | 6E+0 | 2E-9 | 8E-12 | - | - |
| 22 | Titanium-45 | D, see $^{44}$Ti | 9E+3 | 3E+4 | 1E-5 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{44}$Ti | - | 4E+4 | 1E-5 | 5E-8 | - | - |
| | | Y, see $^{44}$Ti | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 23 | Vanadium-47[2] | D, all compounds except those given for W | 3E+4 | 8E+4 | 3E-5 | 1E-7 | - | - |
| | | | St wall (3E+4) | - | - | - | 4E-4 | 4E-3 |
| | | W, oxides, hydroxides, carbides, and halides | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 23 | Vanadium-48 | D, see $^{47}$V | 6E+2 | 1E+3 | 5E-7 | 2E-9 | 9E-6 | 9E-5 |
| | | W, see $^{47}$V | - | 6E+2 | 3E-7 | 9E-10 | - | - |
| 23 | Vanadium-49 | D, see $^{47}$V | 7E+4 | 3E+4 | 1E-5 | - | - | - |
| | | | LLI wall (9E+4) | Bone surf (3E+4) | - | 5E-8 | 1E-3 | 1E-2 |
| | | W, see $^{47}$V | - | 2E+4 | 8E-6 | 2E-8 | - | - |
| 24 | Chromium-48 | D, all compounds except those given for W and Y | 6E+3 | 1E+4 | 5E-6 | 2E-8 | 8E-5 | 8E-4 |
| | | W, halides and nitrates | - | 7E+3 | 3E-6 | 1E-8 | - | - |
| | | Y, oxides and hydroxides | - | 7E+3 | 3E-6 | 1E-8 | - | - |
| 24 | Chromium-49[2] | D, see $^{48}$Cr | 3E+4 | 8E+4 | 4E-5 | 1E-7 | 4E-4 | 4E-3 |
| | | W, see $^{48}$Cr | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| | | Y, see $^{48}$Cr | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 24 | Chromium-51 | D, see $^{48}$Cr | 4E+4 | 5E+4 | 2E-5 | 6E-8 | 5E-4 | 5E-3 |
| | | W, see $^{48}$Cr | - | 2E+4 | 1E-5 | 3E-8 | - | - |
| | | Y, see $^{48}$Cr | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 25 | Manganese-51[2] | D, all compounds except those given for W | 2E+4 | 5E+4 | 2E-5 | 7E-8 | 3E-4 | 3E-3 |
| | | W, oxides, hydroxides, halides, and nitrates | - | 6E+4 | 3E-5 | 8E-8 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 25 | Manganese-52m[2] | D, see $^{51}$Mn | 3E+4 | 9E+4 | 4E-5 | 1E-7 | - | - |
| | | | St wall (4E+4) | - | - | - | 5E-4 | 5E-3 |
| | | W, see $^{51}$Mn | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 25 | Manganese-52 | D, see $^{51}$Mn | 7E+2 | 1E+3 | 5E-7 | 2E-9 | 1E-5 | 1E-4 |
| | | W, see $^{51}$Mn | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| 25 | Manganese-53 | D, see $^{51}$Mn | 5E+4 | 1E+4 | 5E-6 | - | 7E-4 | 7E-3 |
| | | | - | Bone surf (2E+4) | - | 3E-8 | - | - |
| | | W, see $^{51}$Mn | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 25 | Manganese-54 | D, see $^{51}$Mn | 2E+3 | 9E+2 | 4E-7 | 1E-9 | 3E-5 | 3E-4 |
| | | W, see $^{51}$Mn | - | 8E+2 | 3E-7 | 1E-9 | - | - |
| 25 | Manganese-56 | D, see $^{51}$Mn | 5E+3 | 2E+4 | 6E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | W, see $^{51}$Mn | - | 2E+4 | 9E-6 | 3E-8 | - | - |
| 26 | Iron-52 | D, all compounds except those given for W | 9E+2 | 3E+3 | 1E-6 | 4E-9 | 1E-5 | 1E-4 |
| | | W, oxides, hydroxides, and halides | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 26 | Iron-55 | D, see $^{52}$Fe | 9E+3 | 2E+3 | 8E-7 | 3E-9 | 1E-4 | 1E-3 |
| | | W, see $^{52}$Fe | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| 26 | Iron-59 | D, see $^{52}$Fe | 8E+2 | 3E+2 | 1E-7 | 5E-10 | 1E-5 | 1E-4 |
| | | W, see $^{52}$Fe | - | 5E+2 | 2E-7 | 7E-10 | - | - |
| 26 | Iron-60 | D, see $^{52}$Fe | 3E+1 | 6E+0 | 3E-9 | 9E-12 | 4E-7 | 4E-6 |
| | | W, see $^{52}$Fe | - | 2E+1 | 8E-9 | 3E-11 | - | - |
| 27 | Cob9alt-55 | W, all compounds except those given for Y | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 2E-5 | 2E-4 |
| | | Y, oxides, hydroxides, halides, and nitrates | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 27 | Cobalt-56 | W, see $^{55}$Co | 5E+2 | 3E+2 | 1E-7 | 4E-10 | 6E-6 | 6E-5 |
| | | Y, see $^{55}$Co | 4E+2 | 2E+2 | 8E-8 | 3E-10 | - | - |
| 27 | Cobalt-57 | W, see $^{55}$Co | 8E+3 | 3E+3 | 1E-6 | 4E-9 | 6E-5 | 6E-4 |
| | | Y, see $^{55}$Co | 4E+3 | 7E+2 | 3E-7 | 9E-10 | - | - |
| 27 | Cobalt-58m | W, see $^{55}$Co | 6E+4 | 9E+4 | 4E-5 | 1E-7 | 8E-4 | 8E-3 |
| | | Y, see $^{55}$Co | - | 6E+4 | 3E-5 | 9E-8 | - | - |
| 27 | Cobalt-58 | W, see $^{55}$Co | 2E+3 | 1E+3 | 5E-7 | 2E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{55}$Co | 1E+3 | 7E+2 | 3E-7 | 1E-9 | - | - |
| 27 | Cobalt-60m[2] | W, see $^{55}$Co | 1E+6 | 4E+6 | 2E-3 | 6E-6 | - | - |
| | | | St wall (1E+6) | - | - | - | 2E-2 | 2E-1 |
| | | Y, see $^{55}$Co | - | 3E+6 | 1E-3 | 4E-6 | - | - |
| 27 | Cobalt-60 | W, see $^{55}$Co | 5E+2 | 2E+2 | 7E-8 | 2E-10 | 3E-6 | 3E-5 |
| | | Y, see $^{55}$Co | 2E+2 | 3E+1 | 1E-8 | 5E-11 | - | - |
| 27 | Cobalt-61[2] | W, see $^{55}$Co | 2E+4 | 6E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | Y, see $^{55}$Co | 2E+4 | 6E+4 | 2E-5 | 8E-8 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 27 | Cobalt-62m[2] | W, see $^{55}$Co | 4E+4 | 2E+5 | 7E-5 | 2E-7 | - | - |
| | | St wall | (5E+4) | - | - | - | 7E-4 | 7E-3 |
| | | Y, see $^{55}$Co | - | 2E+5 | 6E-5 | 2E-7 | - | - |
| 28 | Nickel-56 | D, all compounds except those given for W | 1E+3 | 2E+3 | 8E-7 | 3E-9 | 2E-5 | 2E-4 |
| | | W, oxides, hydroxides, and carbides | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | Vapor | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 28 | Nickel-57 | D, see $^{56}$Ni | 2E+3 | 5E+3 | 2E-6 | 7E-9 | 2E-5 | 2E-4 |
| | | W, see $^{56}$Ni | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | Vapor | - | 6E+3 | 3E-6 | 9E- | - | - |
| 28 | Nickel-59 | D, see $^{56}$Ni | 2E+4 | 4E+3 | 2E-6 | 5E-9 | 3E-4 | 3E-3 |
| | | W, see $^{56}$Ni | - | 7E+3 | 3E-6 | 1E-8 | - | - |
| | | Vapor | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 28 | Nickel-63 | D, see $^{56}$Ni | 9E+3 | 2E+3 | 7E-7 | 2E-9 | 1E-4 | 1E-3 |
| | | W, see $^{56}$Ni | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | Vapor | - | 8E+2 | 3E-7 | 1E-9 | - | - |
| 28 | Nickel-65 | D, see $^{56}$Ni | 8E+3 | 2E+4 | 1E-5 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{56}$Ni | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| | | Vapor | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| 28 | Nickel-66 | D, see $^{56}$Ni | 4E+2 | 2E+3 | 7E-7 | 2E-9 | - | - |
| | | LLI wall | (5E+2) | - | - | - | 6E-6 | 6E-5 |
| | | W, see $^{56}$Ni | - | 6E+2 | 3E-7 | 9E-10 | - | - |
| | | Vapor | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 29 | Copper-60[2] | D, all compounds except those given for W and Y | 3E+4 | 9E+4 | 4E-5 | 1E-7 | - | - |
| | | St wall | (3E+4) | - | - | - | 4E-4 | 4E-3 |
| | | W, sulfides, halides, and nitrates | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | Y, oxides and hydroxides | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 29 | Copper-61 | D, see $^{60}$Cu | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 2E-4 | 2E-3 |
| | | W, see $^{60}$Cu | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| | | Y, see $^{60}$Cu | - | 4E+4 | 1E-5 | 5E-8 | - | - |
| 29 | Copper-64 | D, see $^{60}$Cu | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 2E-4 | 2E-3 |
| | | W, see $^{60}$Cu | - | 2E+4 | 1E-5 | 3E-8 | - | - |
| | | Y, see $^{60}$Cu | - | 2E+4 | 9E-6 | 3E-8 | - | - |
| 29 | Copper-67 | D, see $^{60}$Cu | 5E+3 | 8E+3 | 3E-6 | 1E-8 | 6E-5 | 6E-4 |
| | | W, see $^{60}$Cu | - | 5E+3 | 2E-6 | 7E-9 | - | - |
| | | Y, see $^{60}$Cu | - | 5E+3 | 2E-6 | 6E-9 | - | - |
| 30 | Zinc-62 | Y, all compounds | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 2E-5 | 2E-4 |
| 30 | Zinc-63[2] | Y, all compounds | 2E+4 | 7E+4 | 3E-5 | 9E-8 | - | - |
| | | St wall | (3E+4) | - | - | - | 3E-4 | 3E-3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 30 | Zinc-65 | Y, all compounds | 4E+2 | 3E+2 | 1E-7 | 4E-10 | 5E-6 | 5E-5 |
| 30 | Zinc-69m | Y, all compounds | 4E+3 | 7E+3 | 3E-6 | 1E-8 | 6E-5 | 6E-4 |
| 30 | Zinc-69[2] | Y, all compounds | 6E+4 | 1E+5 | 6E-5 | 2E-7 | 8E-4 | 8E-3 |
| 30 | Zinc-71m | Y, all compounds | 6E+3 | 2E+4 | 7E-6 | 2E-8 | 8E-5 | 8E-4 |
| 30 | Zinc-72 | Y, all compounds | 1E+3 | 1E+3 | 5E-7 | 2E-9 | 1E-5 | 1E-4 |
| 31 | Gallium-65[2] | D, all compounds except those given for W | 5E+4 | 2E+5 | 7E-5 | 2E-7 | - | - |
| | | | St wall (6E+4), | - | - | - | 9E-4 | 9E-3 |
| | | W, oxides, hydroxides, carbides, halides, and nitrates | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 31 | Gallium-66 | D, see $^{65}$Ga | 1E+3 | 4E+3 | 1E-6 | 5E-9 | 1E-5 | 1E-4 |
| | | W, see $^{65}$Ga | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 31 | Gallium-67 | D, see $^{65}$Ga | 7E+3 | 1E+4 | 6E-6 | 2E-8 | 1E-4 | 1E-3 |
| | | W, see $^{65}$Ga | - | 1E+4 | 4E-6 | 1E-8 | - | - |
| 31 | Gallium-68[2] | D, see $^{65}$Ga | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, see $^{65}$Ga | - | 5E+4 | 2E-5 | 7E-8 | - | - |
| 31 | Gallium-70[2] | D, see $^{65}$Ga | 5E+4 | 2E+5 | 7E-5 | 2E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{65}$Ga | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 31 | Gallium-72 | D, see $^{65}$Ga | 1E+3 | 4E+3 | 1E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | W, see $^{65}$Ga | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 31 | Gallium-73 | D, see $^{65}$Ga | 5E+3 | 2E+4 | 6E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | W, see $^{65}$Ga | - | 2E+4 | 6E-6 | 2E-8 | - | - |
| 32 | Germanium-66 | D, all compounds except those given for W | 2E+4 | 3E+4 | 1E-5 | 4E-8 | 3E-4 | 3E-3 |
| | | W, oxides, sulfides, and halides | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 32 | Germanium-67[2] | D, see $^{66}$Ge | 3E+4 | 9E+4 | 4E-5 | 1E-7 | - | - |
| | | | St wait (4E+4) | - | - | - | 6E-4 | 6E-3 |
| | | W, see $^{66}$Ge | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 32 | Germanium-68 | D, see $^{66}$Ge | 5E+3 | 4E+3 | 2E-6 | 5E-9 | 6E-5 | 6E-4 |
| | | W, see $^{66}$Ge | - | 1E+2 | 4E-8 | 1E-10 | - | - |
| 32 | Germanium-69 | D, see $^{66}$Ge | 1E+4 | 2E+4 | 6E-6 | 2E-8 | 2E-4 | 2E-3 |
| | | W, see $^{66}$Ge | - | 8E+3 | 3E-6 | 1E-8 | - | - |
| 32 | Germanium-71 | D, see $^{66}$Ge | 5E+5 | 4E+5 | 2E-4 | 6E-7 | 7E-3 | 7E-2 |
| | | W, see $^{66}$Ge | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 32 | Germanium-75[2] | D, see $^{66}$Ge | 4E+4 | 8E+4 | 3E-5 | 1E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 9E-4 | 9E-3 |
| | | W, see $^{66}$Ge | - | 8E+4 | 4E-5 | 1E-7 | - | - |
| 32 | Germanium-77 | D, see $^{66}$Ge | 9E+3 | 1E+4 | 4E-6 | 1E-8 | 1E-4 | 1E-3 |
| | | W, see $^{66}$Ge | - | 6E+3 | 2E-6 | 8E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 32 | Germanium-78[2] | D, see $^{66}$Ge | 2E+4 | 2E+4 | 9E-6 | 3E-8 | - | - |
| | | | St wall (2E+4) | - | - | - | 3E-4 | 3E-3 |
| | | W, see $^{66}$Ge | - | 2E+4 | 9E-6 | 3E-8 | - | - |
| 33 | Arsenic-69[2] | W, all compounds | 3E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | | St wall (4E+4) | - | - | - | 6E-4 | 6E-3 |
| 33 | Arsenic-70[2] | W, all compounds | 1E+4 | 5E+4 | 2E-5 | 7E-8 | 2E-4 | 2E-3 |
| 33 | Arsenic-71 | W, all compounds | 4E+3 | 5E+3 | 2E-6 | 6E-9 | 5E-5 | 5E-4 |
| 33 | Arsenic-72 | W, all compounds | 9E+2 | 1E+3 | 6E-7 | 2E-9 | 1E-5 | 1E-4 |
| 33 | Arsenic-73 | W, all compounds | 8E+3 | 2E+3 | 7E-7 | 2E-9 | 1E-4 | 1E-3 |
| 33 | Arsenic-74 | W, all compounds | 1E+3 | 8E+2 | 3E-7 | 1E-9 | 2E-5 | 2E-4 |
| 33 | Arsenic-76 | W, all compounds | 1E+3 | 1E+3 | 6E-7 | 2E-9 | 1E-5 | 1E-4 |
| 33 | Arsenic-77 | W, all compounds | 4E+3 | 5E+3 | 2E-6 | 7E-9 | - | - |
| | | | LLI wall (5E+3) | - | - | - | 6E-5 | 6E-4 |
| 33 | Arsenic-78[2] | W, all compounds | 8E+3 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| 34 | Selenium-70[2] | D, all compounds except those given for W | 2E+4 | 4E+4 | 2E-5 | 5E-8 | 1E-4 | 1E-3 |
| | | W, oxides, hydroxides, carbides, and elemental Se | 1E+4 | 4E+4 | 2E-5 | 6E-8 | - | - |
| 34 | Selenium-73m[2] | D, see $^{70}$Se | 6E+4 | 2E+5 | 6E-5 | 2E-7 | 4E-4 | 4E-3 |
| | | W, see $^{70}$Se | 3E+4 | 1E+5 | 6E-5 | 2E-7 | - | - |
| 34 | Selenium-73 | D, see $^{70}$Se | 3E+3 | 1E+4 | 5E-6 | 2E-8 | 4E-5 | 4E-4 |
| | | W, see $^{70}$Se | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| 34 | Selenium-75 | D, see $^{70}$Se | 5E+2 | 7E+2 | 3E-7 | 1E-9 | 7E-6 | 7E-5 |
| | | W, see $^{70}$Se | - | 6E+2 | 3E-7 | 8E-10 | - | - |
| 34 | Selenium-79 | D, see $^{70}$Se | 6E+2 | 8E+2 | 3E-7 | 1E-9 | 8E-6 | 8E-5 |
| | | W, see $^{70}$Se | - | 6E+2 | 2E-7 | 8E-10 | - | - |
| 34 | Selenium-81m[2] | D, see $^{70}$Se | 4E+4 | 7E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | W, see $^{70}$Se | 2E+4 | 7E+4 | 3E-5 | 1E-7 | - | - |
| 34 | Selenium-81[2] | D, see $^{70}$Se | 6E+4 | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | | St wall (8E+4) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{70}$Se | - | 2E+5 | 1E-4 | 3E-7 | - | - |
| 34 | Selenium-83[2] | D, see $^{70}$Se | 4E+4 | 1E+5 | 5E-5 | 2E-7 | 4E-4 | 4E-3 |
| | | W, see $^{70}$Se | 3E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| 35 | Bromine-74m[2] | D, bromides of H, Li, Na, K, Rb, Cs, and Fr | 1E+4 | 4E+4 | 2E-5 | 5E-8 | - | - |
| | | | St wall (2E+4) | - | - | - | 3E-4 | 3E-3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values: Col. 2 Inhalation ALI (μCi) | Table I Occupational Values: Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II Effluent Concentrations: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| | | W, Bromides of lanthanides, Be, Mg, Ca, Sr, Ba, Ra, Al, Ga, In, Tl, Ge, Sn, Pb, As, Sb, Bi, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, Sc, Y, Ti, Zr, Hf, V, Nb, Ta, Mn, Tc, and Re | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 35 | Bromine-74[2] | D, see $^{74m}$Br | 2E+4 | 7E+4 | 3E-5 | 1E-7 | - | - |
| | | | St wall (4E+4) | - | - | - | 5E-4 | 5E-3 |
| | | W, see $^{74m}$Br | - | 8E+4 | 4E-5 | 1E-7 | - | - |
| 35 | Bromine-75[2] | D, see $^{74m}$Br | 3E+4 | 5E+4 | 2E-5 | 7E-8 | - | - |
| | | | St wall (4E+4) | - | - | - | 5E-4 | 5E-3 |
| | | W, see $^{74m}$Br | - | 5E+4 | 2E-5 | 7E-8 | - | - |
| 35 | Bromine-76 | D, see $^{74m}$Br | 4E+3 | 5E+3 | 2E-6 | 7E-9 | 5E-5 | 5E-4 |
| | | W, see $^{74m}$Br | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| 35 | Bromine-77 | D, see $^{74m}$Br | 2E+4 | 2E+4 | 1E-5 | 3E-8 | 2E-4 | 2E-3 |
| | | W, see $^{74m}$Br | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 35 | Bromine-80m | D, see $^{74m}$Br | 2E+4 | 2E+4 | 7E-6 | 2E-8 | 3E-4 | 3E-3 |
| | | W, see $^{74m}$Br | - | 1E+4 | 6E-6 | 2E-8 | - | - |
| 35 | Bromine-80[2] | D, see $^{74m}$Br | 5E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St wall (9E+4) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{74m}$Br | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| 35 | Bromine-82 | D, see $^{74m}$Br | 3E+3 | 4E+3 | 2E-6 | 6E-9 | 4E-5 | 4E-4 |
| | | W, see $^{74m}$Br | - | 4E+3 | 2E-6 | 5E-9 | - | - |
| 35 | Bromine-83 | D, see $^{74m}$Br | 5E+4 | 6E+4 | 3E-5 | 9E-8 | - | - |
| | | | St wall (7E+4) | - | - | - | 9E-4 | 9E-3 |
| | | W, see $^{74m}$Br | - | 6E+4 | 3E-5 | 9E-8 | - | - |
| 35 | Bromine-84[2] | D, see $^{74m}$Br | 2E+4 | 6E+4 | 2E-5 | 8E-8 | - | - |
| | | | St wall (3E+4) | - | - | - | 4E-4 | 4E-3 |
| | | W, see $^{74m}$Br | - | 6E+4 | 3E-5 | 9E-8 | - | - |
| 36 | Krypton-74[2] | Submersion[1] | - | - | 3E-6 | 1E-8 | - | - |
| 36 | Krypton-76 | Submersion[1] | - | - | 9E-6 | 4E-8 | - | - |
| 36 | Krypton-77[2] | Submersion[1] | - | - | 4E-6 | 2E-8 | - | - |
| 36 | Krypton-79 | Submersion[1] | - | - | 2E-5 | 7E-8 | - | - |
| 36 | Krypton-81 | Submersion[1] | - | - | 7E-4 | 3E-6 | - | - |
| 36 | Krypton-83m[2] | Submersion[1] | - | - | 1E-2 | 5E-5 | - | - |
| 36 | Krypton-85m | Submersion[1] | - | - | 2E-5 | 1E-7 | - | - |
| 36 | Krypton-85 | Submersion[1] | - | - | 1E-4 | 7E-7 | - | - |
| 36 | Krypton-87[2] | Submersion[1] | - | - | 5E-6 | 2E-8 | - | - |
| 36 | Krypton-88 | Submersion[1] | - | - | 2E-6 | 9E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 37 | Rubidium-79[2] | D, all compounds | 4E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | | St wall (6E+4) | - | - | - | 8E-4 | 8E-3 |
| 37 | Rubidium-81m[2] | D, all compounds | 2E+5 | 3E+5 | 1E-4 | 5E-7 | - | - |
| | | | St wall (3E+5) | - | - | - | 4E-3 | 4E-2 |
| 37 | Rubidium-81 | D, all compounds | 4E+4 | 5E+4 | 2E-5 | 7E-8 | 5E-4 | 5E-3 |
| 37 | Rubidium 82m | D, all compounds | 1E+4 | 2E+4 | 7E-6 | 2E-8 | 2E-4 | 2E-3 |
| 37 | Rubidium-83 | D, all compounds | 6E+2 | 1E+3 | 4E-7 | 1E-9 | 9E-6 | 9E-5 |
| 37 | Rubidium-84 | D, all compounds | 5E+2 | 8E+2 | 3E-7 | 1E-9 | 7E-6 | 7E-5 |
| 37 | Rubidium-86 | D, all compounds | 5E+2 | 8E+2 | 3E-7 | 1E-9 | 7E-6 | 7E-5 |
| 37 | Rubidium-87 | D, all compounds | 1E+3 | 2E+3 | 6E-7 | 2E-9 | 1E-5 | 1E-4 |
| 37 | Rubidium-88[2] | D, all compounds | 2E+4 | 6E+4 | 3E-5 | 9E-8 | - | - |
| | | | St wall (3E+4) | - | - | - | 4E-4 | 4E-3 |
| 37 | Rubidium-89[2] | D, all compounds | 4E+4 | 1E+5 | 6E-5 | 2E-7 | - | - |
| | | | St wall (6E+4) | - | - | - | 9E-4 | 9E-3 |
| 38 | Strontium-80[2] | D, all soluble compounds except SrTi0 | 4E+3 | 1E+4 | 5E-6 | 2E-8 | 6E-5 | 6E-4 |
| | | Y, all insoluble compounds and SrTi0 | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 38 | Strontium-81[2] | D, see $^{80}$Sr | 3E+4 | 8E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| | | Y, see $^{80}$Sr | 2E+4 | 8E+4 | 3E-5 | 1E-7 | - | - |
| 38 | Strontium-82 | D, see $^{80}$Sr | 3E+2 | 4E+2 | 2E-7 | 6E-10 | - | - |
| | | | LLI wall (2E+2) | - | - | - | 3E-6 | 3E-5 |
| | | Y, see $^{80}$Sr | 2E+2 | 9E+1 | 4E-8 | 1E-10 | - | - |
| 38 | Strontium-83 | D, see $^{80}$Sr | 3E+3 | 7E+3 | 3E-6 | 1E-8 | 3E-5 | 3E-4 |
| | | Y, see $^{80}$Sr | 2E+3 | 4E+3 | 1E-6 | 5E-9 | - | - |
| 38 | Strontium-85m[2] | D, see $^{80}$Sr | 2E+5 | 6E+5 | 3E-4 | 9E-7 | 3E-3 | 3E-2 |
| | | Y, see $^{80}$Sr | - | 8E+5 | 4E-4 | 1E-6 | - | - |
| 38 | Strontium-85 | D, see $^{80}$Sr | 3E+3 | 3E+3 | 1E-6 | 4E-9 | 4E-5 | 4E-4 |
| | | Y, see $^{80}$Sr | - | 2E+3 | 6E-7 | 2E-9 | - | - |
| 38 | Strontium-87m | D, see $^{80}$Sr | 5E+4 | 1E+5 | 5E-5 | 2E-7 | 6E-4 | 6E-3 |
| | | Y, see $^{80}$Sr | 4E+4 | 2E+5 | 6E-5 | 2E-7 | - | - |
| 38 | Strontium-89 | D, see $^{80}$Sr | 6E+2 | 8E+2 | 4E-7 | 1E-9 | - | - |
| | | | LLI wall (6E+2) | - | - | - | 8E-6 | 8E-5 |
| | | Y, see $^{80}$Sr | 5E+2 | 1E+2 | 6E-8 | 2E-10 | - | - |
| 38 | Strontium-90 | D, see $^{80}$Sr | 3E+1 | 2E+1 | 8E-9 | - | - | - |
| | | | Bone surf (4E+1) | Bone surf (2E+1) | - | 3E-11 | 5E-7 | 5E-6 |
| | | Y, see $^{80}$Sr | - | 4E+0 | 2E-9 | 6E-12 | - | - |
| 38 | Strontium-91 | D, see $^{80}$Sr | 2E+3 | 6E+3 | 2E-6 | 8E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{80}$Sr | - | 4E+3 | 1E-6 | 5E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 38 | Strontium-92 | D, see $^{80}$Sr | 3E+3 | 9E+3 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | Y, see $^{80}$Sr | - | 7E+3 | 3E-6 | 9E-9 | - | - |
| 39 | Yttrium-86m[2] | W, all compounds except those given for Y | 2E+4 | 6E+4 | 2E-5 | 8E-8 | 3E-4 | 3E-3 |
| | | Y, oxides and hydroxides | - | 5E+4 | 2E-5 | 8E-8 | - | - |
| 39 | Yttrium-86 | W, see $^{86m}$Y | 1E+3 | 3E+3 | 1E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{86m}$Y | - | 3E+3 | 1E-6 | 5E-9 | - | - |
| 39 | Yttrium-87 | W, see $^{86m}$ Y | 2E+3 | 3E+3 | 1E-6 | 5E-9 | 3E-5 | 3E-4 |
| | | Y, see $^{86m}$Y | - | 3E+3 | 1E-6 | 5E-9 | - | - |
| 39 | Yttrium-88 | W, see $^{86m}$Y | 1E+3 | 3E+2 | 1E-7 | 3E-10 | 1E-5 | 1E-4 |
| | | Y, see $^{86m}$Y | - | 2E+2 | 1E-7 | 3E-10 | - | - |
| 39 | Yttrium-90m | W, see $^{86m}$Y | 8E+3 | 1E+4 | 5E-6 | 2E-8 | 1E-4 | 1E-3 |
| | | Y, see $^{86m}$Y | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 39 | Yttrium-90 | W, see $^{86m}$Y | 4E+2 LLI wall (5E+2) | 7E+2 - | 3E-7 - | 9E-10 - | - 7E-6 | - 7E-5 |
| | | Y, see $^{86m}$Y | - | 6E+2 | 3E-7 | 9E-10 | - | - |
| 39 | Yttrium-91m[2] | W, see $^{86m}$Y | 1E+5 | 2E+5 | 1E-4 | 3E-7 | 2E-3 | 2E-2 |
| | | Y, see $^{86m}$Y | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| 39 | Yttrium-91 | W, see $^{86m}$Y | 5E+2 LLI wall (6E+2) | 2E+2 - | 7E-8 - | 2E-10 - | - 8E-6 | - 8E-5 |
| | | Y, see $^{86m}$Y | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| 39 | Yttrium-92 | W, see $^{86m}$Y | 3E+3 | 9E+3 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | Y, see $^{86m}$Y | - | 8E+3 | 3E-6 | 1E-8 | - | - |
| 39 | Yttrium-93 | W, see $^{86m}$Y | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{86m}$Y | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 39 | Yttrium-94[2] | W, see $^{86m}$Y | 2E+4 St wall (3E+4) | 8E+4 - | 3E-5 - | 1E-7 - | - 4E-4 | - 4E-3 |
| | | Y, see $^{86m}$Y | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| 39 | Yttrium-95[2] | W, see $^{86m}$Y | 4E+4 St wall (5E+4) | 2E+5 - | 6E-5 - | 2E-7 - | - 7E-4 | - 7E-3 |
| | | Y, see $^{86m}$Y | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 40 | Zirconium-86 | D, all compounds except those given for W and Y | 1E+3 | 4E+3 | 2E-6 | 6E-9 | 2E-5 | 2E-4 |
| | | W, oxides, hydroxides, halides, and nitrates | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | Y, carbide | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 40 | Zirconium-88 | D, see $^{86}$Zr | 4E+3 | 2E+2 | 9E-8 | 3E-10 | 5E-5 | 5E-4 |
| | | W, see $^{86}$Zr | - | 5E+2 | 2E-7 | 7E-10 | - | - |
| | | Y, see $^{86}$Zr | - | 3E+2 | 1E-7 | 4E-10 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 40 | Zirconium-89 | D, see $^{86}$Zr | 2E+3 | 4E+3 | 1E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | W, see $^{86}$Zr | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| | | Y, see $^{86}$Zr | - | 2E+3 | 1E--6 | 3E-9 | - | - |
| 40 | Zirconium-93 | D, see $^{86}$Zr | 1E+3 Bone surf (3E+3) | 6E+0 Bone surf (2E+1) | 3E-9 - | - 2E-11 | - 4E-5 | - 4E-4 |
| | | W, see $^{86}$Zr | - - | 2E+1 Bone surf (6E+1) | 1E-8 - | - 9E-11 | - - | - - |
| | | Y, see $^{86}$Zr | - - | 6E+1 Bone surf (7E+1) | 2E-8 - | - 9E-11 | - - | - - |
| 40 | Zirconium-95 | D, see $^{86}$Zr | 1E+3 - | 1E+2 Bone surf (3E+2) | 5E-8 - | - 4E-10 | 2E-5 - | 2E-4 - |
| | | W, see $^{86}$Zr | - | 4E+2 | 2E-7 | 5E-10 | - | - |
| | | Y, see $^{86}$Zr | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| 40 | Zirconium-97 | D, see $^{86}$Zr | 6E+2 | 2E+3 | 8E-7 | 3E-9 | 9E-6 | 9E-5 |
| | | W, see $^{86}$Zr | - | 1E+3 | 6E-7 | 2E-9 | - | - |
| | | Y, see $^{86}$Zr | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 41 | Niobium-88[2] | W, all compounds except those given for Y | 5E+4 St wall (7E+4) | 2E+5 - | 9E-5 - | 3E-7 - | - 1E-3 | - 1E-2 |
| | | Y, oxides and hydroxides | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| 41 | Niobium-89[2] (66 min) | W, see $^{88}$Nb | 1E+4 | 4E+4 | 2E-5 | 6E-8 | 1E-4 | 1E-3 |
| | | Y, see $^{88}$Nb | - | 4E+4 | 2E-5 | 5E-8 | - | - |
| 41 | Niobium-89 (122 min) | W, see $^{88}$Nb | 5E+3 | 2E+4 | 8E-6 | 3E-8 | 7E-5 | 7E-4 |
| | | Y, see $^{88}$Nb | - | 2E+4 | 6E-6 | 2E-8 | - | - |
| 41 | Niobium-90 | W, see $^{88}$Nb | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 1E-5 | 1E-4 |
| | | Y, see $^{88}$Nb | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 41 | Niobium-93m | W, see $^{88}$Nb | 9E+3 LLI wall (1E+4) | 2E+3 - | 8E-7 - | 3E-9 - | - 2E-4 | - 2E-3 |
| | | Y, see $^{88}$Nb | - | 2E+2 | 7E-8 | 2E-10 | - | - |
| 41 | Niobium-94 | W, see $^{88}$Nb | 9E+2 | 2E+2 | 8E-8 | 3E-10 | 1E-5 | 1E-4 |
| | | Y, see $^{88}$Nb | - | 2E+1 | 6E-9 | 2E-11 | - | - |
| 41 | Niobium-95m | W, see $^{88}$Nb | 2E+3 LLI wall (2E+3) | 3E+3 - | 1E-6 - | 4E-9 - | - 3E-5 | - 3E-4 |
| | | Y, see $^{88}$Nb | - | 2E+3 | 9E-7 | 3E-9- | - | |
| 41 | Niobium-95 | W, see $^{88}$Nb | 2E+3 | 1E+3 | 5E-7 | 2E-9 | 3E-5 | 3E-4 |
| | | Y, see $^{88}$Nb | - | 1E+3 | 5E-7 | 2E-9- | - | |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values: Col. 2 Inhalation ALI (μCi) | Table I Occupational Values: Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II Effluent Concentrations: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 41 | Niobium-96 | W, see $^{88}$Nb | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{88}$Nb | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 41 | Niobium-97[2] | W, see $^{88}$Nb | 2E+4 | 8E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| | | Y, see $^{88}$Nb | - | 7E+4 | 3E-5 | 1E-7 | - | - |
| 41 | Niobium-98[2] | W, see $^{88}$Nb | 1E+4 | 5E+4 | 2E-5 | 8E-8 | 2E-4 | 2E-3 |
| | | Y, see $^{88}$Nb | - | 5E+4 | 2E-5 | 7E-8 | - | - |
| 42 | Molybdenum-90 | D, all compounds except those given for Y | 4E+3 | 7E+3 | 3E-6 | 1E-8 | 3E-5 | 3E-4 |
| | | Y, oxides, hydroxides, and MoS | 2E+3 | 5E+3 | 2E-6 | 6E-9 | - | - |
| 42 | Molybdenum-93m | D, see $^{90}$Mo | 9E+3 | 2E+4 | 7E-6 | 2E-8 | 6E-5 | 6E-4 |
| | | Y, see $^{90}$Mo | 4E+3 | 1E+4 | 6E-6 | 2E-8 | - | - |
| 42 | Molybdenum-93 | D, see $^{90}$Mo | 4E+3 | 5E+3 | 2E-6 | 8E-9 | 5E-5 | 5E-4 |
| | | Y, see $^{90}$Mo | 2E+4 | 2E+2 | 8E-8 | 2E-10 | - | - |
| 42 | Molybdenum-99 | D, see $^{90}$Mo | 2E+3 | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{90}$Mo | 1E+3 | 1E+3 | 6E-7 | 2E-9 | - | - |
| 42 | Molybdenum-101[2] | D, see $^{90}$Mo | 4E+4 | 1E+5 | 6E-5 | 2E-7 | - | - |
| | | | St wall (5E+4) | - | - | - | 7E-4 | 7E-3 |
| | | Y, see $^{90}$Mo | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 43 | Technetium-93m[2] | D, All compounds except those given for W | 7E+4 | 2E+5 | 6E-5 | 2E-7 | 1E-3 | 1E-2 |
| | | W, oxides, hydroxides, halides, and nitrates | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| 43 | Technetium-93 | D, see $^{93m}$Tc | 3E+4 | 7E+4 | 3E-5 | 1E-7 | 4E-4 | 4E-3 |
| | | W, see $^{93m}$Tc | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 43 | Technetium-94m[2] | D, see $^{93m}$Tc | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 3E-4 | 3E-3 |
| | | W, see $^{93m}$Tc | - | 6E+4 | 2E-5 | 8E-8 | - | - |
| 43 | Technetium-94 | D, see $^{93m}$Tc | 9E+3 | 2E+4 | 8E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{93m}$Tc | - | 2E+4 | 1E-5 | 3E-8 | - | - |
| 43 | Technetium-95m | D, see $^{93m}$Tc | 4E+3 | 5E+3 | 2E-6 | 8E-9 | 5E-5 | 5E-4 |
| | | W, see $^{93m}$Tc | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 43 | Technetium-95 | D, see $^{93m}$Tc | 1E+4 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{93m}$Tc | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 43 | Technetium-96m[2] | D, see $^{93m}$Tc | 2E+5 | 3E+5 | 1E-4 | 4E-7 | 2E-3 | 2E-2 |
| | | W, see $^{93m}$Tc | - | 2E+5 | 1E-4 | 3E-7 | - | - |
| 43 | Technetium-96 | D, see $^{93m}$Tc | 2E+3 | 3E+3 | 1E-6 | 5E-9 | 3E-5 | 3E-4 |
| | | W, see $^{93m}$Tc | - | 2E+3 | 9E-7 | 3E-9 | - | - |
| 43 | Technetium-97m | D, see $^{93m}$Tc | 5E+3 | 7E+3 | 3E-6 | - | 6E-5 | 6E-4 |
| | | | - | St wall (7E+3) | - | 1E-8 | - | - |
| | | W, see $^{93m}$Tc | - | 1E+3 | 5E-7 | 2E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 43 | Technetium-97 | D, see $^{93m}$Tc | 4E+4 | 5E+4 | 2E-5 | 7E-8 | 5E-4 | 5E-3 |
| | | W, see $^{93m}$Tc | - | 6E+3 | 2E-6 | 8E-9 | - | - |
| 43 | Technetium-98 | D, see $^{93m}$Tc | 1E+3 | 2E+3 | 7E-7 | 2E-9 | 1E-5 | 1E-4 |
| | | W, see $^{93m}$Tc | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| 43 | Technetium-99m | D, see $^{93m}$Tc | 8E+4 | 2E+5 | 6E-5 | 2E-7 | 1E-3 | 1E-2 |
| | | W, see $^{93m}$Tc | - | 2E+5 | 1E-4 | 3E-7 | - | - |
| 43 | Technetium-99 | D, see $^{93m}$Tc | 4E+3 | 5E+3 | 2E-6 | - | 6E-5 | 6E-4 |
| | | | - | St wall (6E+3) | - | 8E-9 | - | - |
| | | W, see $^{93m}$Tc | - | 7E+2 | 3E-7 | 9E-10 | - | - |
| 43 | Technetium-101[2] | D, see $^{93m}$Tc | 9E+4 | 3E+5 | 1E-4 | 5E-7 | - | - |
| | | | St wall (1E+5) | - | - | - | 2E-3 | 2E-2 |
| | | W, see $^{93m}$Tc | - | 4E+5 | 2E-4 | 5E-7 | - | - |
| 43 | Technetium-104[2] | D, see $^{93m}$Tc | 2E+4 | 7E+4 | 3E-5 | 1E-7 | - | - |
| | | | St wall (3E+4) | - | - | - | 4E-4 | 4E-3 |
| | | W, see $^{93m}$Tc | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 44 | Ruthenium-94[2] | D, all compounds except those given for W and Y | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, halides | - | 6E+4 | 3E-5 | 9E-8 | - | - |
| | | Y, oxides and hydroxides | - | 6E+4 | 2E-5 | 8E-8 | - | - |
| 44 | Ruthenium-97 | D, see $^{94}$Ru | 8E+3 | 2E+4 | 8E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{94}$Ru | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| | | Y, see $^{94}$Ru | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 44 | Ruthenium-103 | D, see $^{94}$Ru | 2E+3 | 2E+3 | 7E-7 | 2E-9 | 3E-5 | 3E-4 |
| | | W, see $^{94}$Ru | - | 1E+3 | 4E-7 | 1E-9 | - | - |
| | | Y, see $^{94}$Ru | - | 6E+2 | 3E-7 | 9E-10 | - | - |
| 44 | Ruthenium-105 | D, see $^{94}$Ru | 5E+3 | 1E+4 | 6E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | W, see $^{94}$Ru | - | 1E+4 | 6E-6 | 2E-8 | - | - |
| | | Y, see $^{94}$Ru | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 44 | Ruthenium-106 | D, see $^{94}$Ru | 2E+2 | 9E+1 | 4E-8 | 1E-10 | - | - |
| | | | LLI wall (2E+2) | - | - | - | 3E-6 | 3E-5 |
| | | W, see $^{94}$Ru | - | 5E+1 | 2E-8 | 8E-11 | - | - |
| | | Y, see $^{94}$Ru | - | 1E+1 | 5E-9 | 2E-11 | - | - |
| 45 | Rhodium-99m | D, all compounds except those given for W and Y | 2E+4 | 6E+4 | 2E-5 | 8E-8 | 2E-4 | 2E-3 |
| | | W, halides | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| | | Y, oxides and hydroxides | - | 7E+4 | 3E-5 | 9E-8 | - | - |
| 45 | Rhodium-99 | D, see $^{99m}$Rh | 2E+3 | 3E+3 | 1E-6 | 4E-9 | 3E-5 | 3E-4 |
| | | W, see $^{99m}$Rh | - | 2E+3 | 9E-7 | 3E-9 | - | - |
| | | Y, see $^{99m}$Rh | - | 2E+3 | 8E-7 | 3E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 45 | Rhodium-100 | D, see $^{99m}$Rh | 2E+3 | 5E+3 | 2E-6 | 7E-9 | 2E-5 | 2E-4 |
| | | W, see $^{99m}$Rh | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | Y, see $^{99m}$Rh | - | 4E+ 3 | 2E-6 | 5E-9 | - | - |
| 45 | Rhodium-101m | D, see $^{99m}$Rh | 6E+3 | 1E+4 | 5E-6 | 2E-8 | 8E-5 | 8E-4 |
| | | W, see $^{99m}$Rh | - | 8E+3 | 4E- 6 | 1E-8 | - | - |
| | | Y, see $^{99m}$Rh | - | 8E+3 | 3E-6 | 1E-8 | - | - |
| 45 | Rhodium-101 | D, see $^{99m}$Rh | 2E+3 | 5E+2 | 2E-7 | 7E-10 | 3E-5 | 3E-4 |
| | | W, see $^{99m}$Rh | - | 8E+2 | 3E-7 | 1E-9 | - | - |
| | | Y, see $^{99m}$Rh | - | 2E+2 | 6E-8 | 2E-10 | - | - |
| 45 | Rhodium-102m | D, see $^{99m}$Rh | 1E+3 | 5E+2 | 2E-7 | 7E-10 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | W, see $^{99m}$Rh | - | 4E+2 | 2E-7 | 5E-10 | - | - |
| | | Y, see $^{99m}$Rh | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| 45 | Rhodium-102 | D, see $^{99m}$Rh | 6E+2 | 9E+1 | 4E-8 | 1E-10 | 8E-6 | 8E-5 |
| | | W, see $^{99m}$Rh | - | 2E+2 | 7E-8 | 2E-10 | - | - |
| | | Y, see $^{99m}$Rh | - | 6E+1 | 2E-8 | 8E-11 | - | - |
| 45 | Rhodium-103m[2] | D, see $^{99m}$Rh | 4E+5 | 1E+6 | 5E-4 | 2E-6 | 6E-3 | 6E-2 |
| | | W, see $^{99m}$Rh | - | 1E+6 | 5E-4 | 2E-6 | - | - |
| | | Y, see $^{99m}$Rh | - | 1E+6 | 5E-4 | 2E-6 | - | - |
| 45 | Rhodium-105 | D, see $^{99m}$Rh | 4E+3 | 1E+4 | 5E-6 | 2E-8 | - | - |
| | | | LLI wall (4E+3) | - | - | - | 5E-5 | 5E-4 |
| | | W, see $^{99m}$Rh | - | 6E+3 | 3E-6 | 9E-9 | - | - |
| | | Y, see $^{99m}$Rh | - | 6E+3 | 2E-6 | 8E-9 | - | - |
| 45 | Rhodium-106m | D, see $^{99m}$Rh | 8E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| | | W, see $^{99m}$Rh | - | 4E+4 | 2E-5 | 5E-8 | - | - |
| | | Y, see $^{99m}$Rh | - | 4E+4 | 1E-5 | 5E-8 | - | - |
| 45 | Rhodium-107[2] | D, see $^{99m}$Rh | 7E+4 | 2E+5 | 1E-4 | 3E-7 | - | - |
| | | | St wall (9E+4) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{99m}$Rh | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| | | Y, see $^{99m}$Rh | - | 3E+5 | 1E-4 | 3E-7 | - | - |
| 46 | Palladium-100 | D, all compounds except those given for W and Y | 1E+3 | 1E+3 | 6E-7 | 2E-9 | 2E-5 | 2E-4 |
| | | W, nitrates | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | Y, oxides and hydroxides | - | 1E+3 | 6E-7 | 2E-9 | - | - |
| 46 | Palladium-101 | D, see $^{100}$Pd | 1E+4 | 3E+4 | 1E-5 | 5E-8 | 2E-4 | 2E-3 |
| | | W, see $^{100}$Pd | - | 3E+4 | 1E-5 | 5E-8 | - | - |
| | | Y, see $^{100}$Pd | - | 3E+4 | 1E-5 | 4E-8 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 46 | Palladium-103 | D, see $^{100}$Pd | 6E+3 | 6E+3 | 3E-6 | 9E-9 | - | - |
| | | | LLI wall (7E+3) | - | - | - | 1E-4 | 1E-3 |
| | | W, see $^{100}$Pd | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | Y, see $^{100}$Pd | - | 4E+3 | 1E-6 | 5E-9 | - | - |
| 46 | Palladium-107 | D, see $^{100}$Pd | 3E+4 | 2E+4 | 9E-6 | - | - | - |
| | | | LLI wall (4E+4) | Kidneys (2E+4) | - | 3E-8 | 5E-4 | 5E-3 |
| | | W, see $^{100}$Pd | - | 7E+3 | 3E-6 | 1E-8 | - | - |
| | | Y, see $^{100}$Pd | - | 4E+2 | 2E-7 | 6E-10 | - | - |
| 46 | Palladium-109 | D, see $^{100}$Pd | 2E+3 | 6E+3 | 3E-6 | 9E-9 | 3E-5 | 3E-4 |
| | | W, see $^{100}$Pd | - | 5E+3 | 2E-6 | 8E-9 | - | - |
| | | Y, see,$^{100}$Pd | - | 5E+3 | 2E-6 | 6E-9 | - | - |
| 47 | Silver-102[2] | D, all compounds except those given for W and Y | 5E+4 | 2E+5 | 8E-5 | 2E-7 | - | - |
| | | | St wall (6E+4) | - | - | - | 9E-4 | 9E-3 |
| | | W, nitrates and sulfides | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | Y, oxides and hydroxides | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 47 | Silver-103[2] | D, see $^{102}$Ag | 4E+4 | 1E+5 | 4E-5 | 1E-7 | 5E-4 | 5E-3 |
| | | W, see $^{102}$Ag | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | Y, see $^{102}$Ag | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 47 | Silver-104m[2] | D, see $^{102}$Ag | 3E+4 | 9E+4 | 4E-5 | 1E-7 | 4E-4 | 4E-3 |
| | | W, see $^{102}$Ag | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | Y, see $^{102}$Ag | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 47 | Silver-104[2] | D, see $^{102}$Ag | 2E+4 | 7E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| | | W, see $^{102}$Ag | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| | | Y, see $^{102}$Ag | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 47 | Silver-105 | D, see $^{102}$Ag | 3E+3 | 1E+3 | 4E-7 | 1E-9 | 4E-5 | 4E-4 |
| | | W, see $^{102}$Ag | - | 2E+3 | 7E-7 | 2E-9 | - | - |
| | | Y, see $^{102}$Ag | - | 2E+3 | 7E-7 | 2E-9 | - | - |
| 47 | Silver-106m | D, see $^{102}$Ag | 8E+2 | 7E+2 | 3E-7 | 1E-9 | 1E-5 | 1E-4 |
| | | W, see $^{102}$Ag | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| | | Y, see $^{102}$Ag | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| 47 | Silver-106[2] | D, see $^{102}$Ag | 6E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St Wall (6E+4) | - | - | - | 9E-4 | 9E-3 |
| | | W, see $^{102}$Ag | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | Y, see $^{102}$Ag | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 47 | Silver-108m | D, see $^{102}$Ag | 6E+2 | 2E+2 | 8E-8 | 3E-10 | 9E-6 | 9E-5 |
| | | W, see $^{102}$Ag | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| | | Y, see $^{102}$Ag | - | 2E+1 | 1E-8 | 3E-11 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 47 | Silver-110m | D, see $^{102}$Ag | 5E+2 | 1E+2 | 5E-8 | 2E-10 | 6E-6 | 6E-5 |
| | | W, see $^{102}$Ag | - | 2E+2 | 8E-8 | 3E-10 | - | - |
| | | Y, see $^{102}$Ag | - | 9E+1 | 4E-8 | 1E-10 | - | - |
| 47 | Silver-111 | D, see $^{102}$Ag | 9E+2 | 2E+3 | 6E-7 | - | - | - |
| | | | LLI wall (1E+3) | Liver (2E+3) | - | 2E-9 | 2E-5 | 2E-4 |
| | | W, see $^{102}$Ag | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| | | Y, see $^{102}$Ag | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| 47 | Silver-112 | D, see $^{102}$Ag | 3E+3 | 8E+3 | 3E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, see $^{102}$Ag | - | 1E+4 | 4E-6 | 1E-8 | - | - |
| | | Y, see $^{102}$Ag | - | 9E+3 | 4E-6 | 1E-8 | - | - |
| 47 | Silver-115[2] | D, see $^{102}$Ag | 3E+4 | 9E+4 | 4E-5 | 1E-7 | - | - |
| | | | St wall (3E+4) | - | - | - | 4E-4 | 4E-3 |
| | | W, see $^{102}$Ag | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| | | Y, see $^{102}$Ag | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| 48 | Cadmium-104[2] | D, all compounds except those given for W and Y | 2E+4 | 7E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | W, sulfides, halides, and nitrates | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | Y, oxides and hydroxides | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 48 | Cadmium-107 | D, see $^{104}$Cd | 2E+4 | 5E+4 | 2E-5 | 8E-8 | 3E-4 | 3E-3 |
| | | W, see $^{104}$Cd | - | 6E+4 | 2E-5 | 8E-8 | - | - |
| | | Y, see $^{104}$Cd | - | 5E+4 | 2E-5 | 7E-8 | - | - |
| 48 | Cadmium-109 | D, see $^{104}$Cd | 3E+2 | 4E+1 | 1E-8 | - | - | - |
| | | | Kidneys (4E+2) | Kidneys (5E+1) | - | 7E-11 | 6E-6 | 6E-5 |
| | | W, see $^{104}$Cd | - | 1E+2 | 5E-8 | - | - | - |
| | | | - | Kidneys (1E+2) | - | 2E-10 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| 48 | Cadmium-113m | D, see $^{104}$Cd | 2E+1 | 2E+0 | 1E-9 | - | - | - |
| | | | Kidneys (4E+1) | Kidneys (4E+0) | - | 5E-12 | 5E-7 | 5E-6 |
| | | W, see $^{104}$Cd | - | 8E+0 | 4E-9 | - | - | - |
| | | | - | Kidneys (1E+1) | - | 2E-11 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+1 | 5E-9 | 2E-11 | - | - |
| 48 | Cadmium-113 | D, see $^{104}$Cd | 2E+1 | 2E+0 | 9E-10 | - | - | - |
| | | | Kidneys (3E+1) | Kidneys (3E+0) | - | 5E-12 | 4E-7 | 4E-6 |
| | | W, see $^{104}$Cd | - | 8E+0 | 3E-9 | - | - | - |
| | | | - | Kidneys (1E+1) | - | 2E-11 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+1 | 6E-9 | 2E-11 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 48 | Cadmium-115m | D, see $^{104}$Cd | 3E+2 | 5E+1 | 2E-8 | - | 4E-6 | 4E-5 |
| | | | - | Kidneys (8E+1) | - | 1E-10 | - | - |
| | | W, see $^{104}$Cd | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+2 | 6E-8 | 2E-10 | - | - |
| 48 | Cadmium-115 | D, see $^{104}$Cd | 9E+2 | 1E+3 | 6E-7 | 2E-9 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 1E-5 | 1E-4 |
| | | W, see $^{104}$Cd | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+3 | 6E-7 | 2E-9 | - | - |
| 48 | Cadmium-117m | D, see $^{104}$Cd | 5E+3 | 1E+4 | 5E-6 | 2E-8 | 6E-5 | 6E-4 |
| | | W, see $^{104}$Cd | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+4 | 6E-6 | 2E-8 | - | - |
| 48 | Cadmium-117 | D, see $^{104}$Cd | 5E+3 | 1E+4 | 5E-6 | 2E-8 | 6E-5 | 6E-4 |
| | | W, see $^{104}$Cd | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| | | Y, see $^{104}$Cd | - | 1E+4 | 6E-6 | 2E-8 | - | - |
| 49 | Indium-109 | D, all compounds except those given for W | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 3E-4 | 3E-3 |
| | | W, oxides, hydroxides, halides, and nitrates | - | 6E+4 | 3E-5 | 9E-8 | - | - |
| 49 | Indium-110[2] | D, see $^{109}$In | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | (69.1 min) | W, see $^{109}$In | - | 6E+4 | 2E-5 | 8E-8 | - | - |
| 49 | Indium-110 | D, see $^{109}$In | 5E+3 | 2E+4 | 7E-6 | 2E-8 | 7E-5 | 7E-4 |
| | (4.9 h) | W, see $^{109}$In | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 49 | Indium-111 | D, see $^{109}$In | 4E+3 | 6E+3 | 3E-6 | 9E-9 | 6E-5 | 6E-4 |
| | | W, see $^{109}$In | - | 6E+3 | 3E-6 | 9E-9 | - | - |
| 49 | Indium-112[2] | D, see $^{109}$In | 2E+5 | 6E+5 | 3E-4 | 9E-7 | 2E-3 | 2E-2 |
| | - | W, see $^{109}$In | - | 7E+5 | 3E-4 | 1E-6 | - | - |
| 49 | Indium-113m[2] | D, see $^{109}$In | 5E+4 | 1E+5 | 6E-5 | 2E-7 | 7E-4 | 7E-3 |
| | - | W, see $^{109}$In | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 49 | Indium-114m | D, see $^{109}$In | 3E+2 | 6E+1 | 3E-8 | 9E-11 | - | - |
| | | | LLI wall (4E+2) | - | - | - | 5E-6 | 5E-5 |
| | | W, see $^{109}$In | - | 1E+2 | 4E-8 | 1E-10 | - | - |
| 49 | Indium-115m | D, see $^{109}$In | 1E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | - | W, see $^{109}$In | - | 5E+4 | 2E-5 | 7E-8 | - | - |
| 49 | Indium-115 | D, see $^{109}$In | 4E+1 | 1E+0 | 6E-10 | 2E-12 | 5E-7 | 5E-6 |
| | - | W, see $^{109}$In | - | 5E+0 | 2E-9 | 8E-12 | - | - |
| 49 | Indium-116m[2] | D, see $^{109}$In | 2E+4 | 8E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| | | W, see $^{109}$In | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 49 | Indium-117m[2] | D, see $^{109}$In | 1E+4 | 3E+4 | 1E-5 | 5E-8 | 2E-4 | 2E-3 |
| | - | W, see $^{109}$In | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 49 | Indium-117[2] | D, see $^{109}$In | 6E+4 | 2E+5 | 7E-5 | 2E-7 | 8E-4 | 8E-3 |
| | | W, see $^{109}$In | - | 2E+5 | 9E-5 | 3E-7 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 49 | Indium-119m[2] | D, see $^{109}$In | 4E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | | St wall (5E+4) | - | - | - | 7E-4 | 7E-3 |
| | | W, see $^{109}$In | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 50 | Tin-110 | D, all compounds except those given for W | 4E+3 | 1E+4 | 5E-6 | 2E-8 | 5E-5 | 5E-4 |
| | | W, sulfides, oxides, hydroxides, halides, nitrates, and stannic phosphate | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 50 | Tin-111[2] | D, see $^{110}$Sn | 7E+4 | 2E+5 | 9E-5 | 3E-7 | 1E-3 | 1E-2 |
| | | W, see $^{110}$Sn | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| 50 | Tin-113 | D, see $^{110}$Sn | 2E+3 | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| | | W, see $^{110}$Sn | - | 5E+2 | 2E-7 | 8E-10 | - | - |
| 50 | Tin-117m | D, see $^{110}$Sn | 2E+3 | 1E+3 | 5E-7 | - | - | - |
| | | | LLI wall (2E+3) | Bone surf (2E+3) | - | 3E-9 | 3E-5 | 3E-4 |
| | | W, see $^{110}$Sn | - | 1E+3 | 6E-7 | 2E-9 | - | - |
| 50 | Tin-119m | D, see $^{110}$Sn | 3E+3 | 2E+3 | 1E-6 | 3E-9 | - | - |
| | | | LLI wall (4E+3) | - | - | - | 6E-5 | 6E-4 |
| | | W, see $^{110}$Sn | - | 1E+3 | 4E-7 | 1E-9 | - | - |
| 50 | Tin-121m | D, see $^{110}$Sn | 3E+3 | 9E+2 | 4E-7 | 1E-9 | - | - |
| | | | LLI wall (4E+3) | - | - | - | 5E-5 | 5E-4 |
| | | W, see $^{110}$Sn | - | 5E+2 | 2E-7 | 8E-10 | - | - |
| 50 | Tin-121 | D, see $^{110}$Sn | 6E+3 | 2E+4 | 6E-6 | 2E-8 | - | - |
| | | | LLI wall (6E+3) | - | - | - | 8E-5 | 8E-4 |
| | | W, see $^{110}$Sn | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 50 | Tin-123m[2] | D, see $^{110}$Sn | 5E+4 | 1E+5 | 5E-5 | 2E-7 | 7E-4 | 7E-3 |
| | | W, see $^{110}$Sn | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 50 | Tin-123 | D, see $^{110}$Sn | 5E+2 | 6E+2 | 3E-7 | 9E-10 | - | - |
| | | | LLI wall (6E+2) | - | - | - | 9E-6 | 9E-5 |
| | | W, see $^{110}$Sn | - | 2E+2 | 7E-8 | 2E-10 | - | - |
| 50 | Tin-125 | D, see $^{110}$Sn | 4E+2 | 9E+2 | 4E-7 | 1E-9 | - | - |
| | | | LLI wall (5E+2) | - | - | - | 6E-6 | 6E-5 |
| | | W, see $^{110}$Sn | - | 4E+2 | 1E-7 | 5E-10 | - | - |
| 50 | Tin-126 | D, see $^{110}$Sn | 3E+2 | 6E+1 | 2E-8 | 8E-11 | 4E-6 | 4E-5 |
| | | W, see $^{110}$Sn | - | 7E+1 | 3E-8 | 9E-11 | - | - |
| 50 | Tin-127 | D, see $^{110}$Sn | 7E+3 | 2E+4 | 8E-6 | 3E-8 | 9E-5 | 9E-4 |
| | | W, see $^{110}$Sn | - | 2E+4 | 8E-6 | 3E-8 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values: Col. 2 Inhalation ALI (μCi) | Table I Occupational Values: Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II Effluent Concentrations: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 50 | Tin-128[2] | D, see $^{110}$Sn | 9E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| | | W, see $^{110}$Sn | - | 4E+4 | 1E-5 | 5E-8 | - | - |
| 51 | Antimony-115[2] | D, all compounds except those given for W | 8E+4 | 2E+5 | 1E-4 | 3E-7 | 1E-3 | 1E-2 |
| | | W, oxides, hydroxides, halides, sulfides, sulfates, and nitrates | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| 51 | Antimony-116m[2] | D, see $^{115}$Sb | 2E+4 | 7E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| | | W, see $^{115}$Sb | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 51 | Antimony-116[2] | D, see $^{115}$Sb | 7E+4 | 3E+5 | 1E-4 | 4E-7 | - | - |
| | | | St wall (9E+4) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{115}$Sb | - | 3E+5 | 1E-4 | 5E-7 | - | - |
| 51 | Antimony-117 | D, see $^{115}$Sb | 7E+4 | 2E+5 | 9E-5 | 3E-7 | 9E-4 | 9E-3 |
| | | W, see $^{115}$Sb | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| 51 | Antimony-118m | D, see $^{115}$Sb | 6E+3 | 2E+4 | 8E-6 | 3E-8 | 7E-5 | 7E-4 |
| | | W, see $^{115}$Sb | 5E+3 | 2E+4 | 9E-6 | 3E-8 | - | - |
| 51 | Antimony-119 | D, see $^{115}$Sb | 2E+4 | 5E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, see $^{115}$Sb | 2E+4 | 3E+4 | 1E-5 | 4E-8 | - | - |
| 51 | Antimony-120[2] (16 min) | D, see $^{115}$Sb | 1E+5 | 4E+5 | 2E-4 | 6E-7 | - | - |
| | | | St wall (2E+5) | - | - | - | 2E-3 | 2E-2 |
| | | W, see $^{115}$Sb | - | 5E+5 | 2E-4 | 7E-7 | - | - |
| 51 | Antimony-120 | D, see $^{115}$Sb | 1E+3 | 2E+3 | 9E-7 | 3E-9 | 1E-5 | 1E-4 |
| | (5.76 d) | W, see $^{115}$Sb | 9E+2 | 1E+3 | 5E-7 | 2E-9 | - | - |
| 51 | Antimony-122 | D, see $^{115}$Sb | 8E+2 | 2E+3 | 1E-6 | 3E-9 | - | - |
| | | | LLI wall (8E+2) | - | - | - | 1E-5 | 1E-4 |
| | | W, see $^{115}$Sb | 7E+2 | 1E+3 | 4E-7 | 2E-9 | - | - |
| 51 | Antimony-124m[2] | D, see $^{115}$Sb | 3E+5 | 8E+5 | 4E-4 | 1E-6 | 3E-3 | 3E-2 |
| | | W, see $^{115}$Sb | 2E+5 | 6E+5 | 2E-4 | 8E-7 | - | - |
| 51 | Antimony-124 | D, see $^{115}$Sb | 6E+2 | 9E+2 | 4E-7 | 1E-9 | 7E-6 | 7E-5 |
| | | W, see $^{115}$Sb | 5E+2 | 2E+2 | 1E-7 | 3E-10 | - | - |
| 51 | Antimony-125 | D, see $^{115}$Sb | 2E+3 | 2E+3 | 1E-6 | 3E-9 | 3E-5 | 3E-4 |
| | | W, see $^{115}$Sb | - | 5E+2 | 2E-7 | 7E-10 | - | - |
| 51 | Antimony-126m[2] | D, see $^{115}$Sb | 5E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 9E-4 | 9E-3 |
| | | W, see $^{115}$Sb | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 51 | Antimony-126 | D, see $^{115}$Sb | 6E+2 | 1E+3 | 5E-7 | 2E-9 | 7E-6 | 7E-5 |
| | | W, see $^{115}$Sb | 5E+2 | 5E+2 | 2E-7 | 7E-10 | - | - |
| 51 | Antimony-127 | D, see $^{115}$Sb | 8E+2 | 2E+3 | 9E-7 | 3E-9 | - | - |
| | | | LLI wall (8E+2) | - | - | - | 1E-5 | 1E-4 |
| | | W, see $^{115}$Sb | 7E+2 | 9E+2 | 4E-7 | 1E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Col. 2 Inhalation ALI (μCi) | Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 51 | Antimony-128[2] (10.4 min) | D, see $^{115}$Sb | 8E+4 St wall (1E+5) | 4E+5 - | 2E-4 - | 5E-7 - | - 1E-3 | - 1E-2 |
| | | W, see $^{115}$Sb | - | 4E+5 | 2E-4 | 6E-7 | - | - |
| 51 | Antimony-128 | D, see $^{115}$Sb | 1E+3 | 4E+3 | 2E-6 | 6E-9 | 2E-5 | 2E-4 |
| | (9.01 h) | W, see $^{115}$Sb | - | 3E+3 | 1E-6 | 5E-9 | - | - |
| 51 | Antimony-129 | D, see $^{115}$Sb | 3E+3 | 9E+3 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, see $^{115}$Sb | - | 9E+3 | 4E-6 | 1E-8 | - | - |
| 51 | Antimony-130[2] | D, see $^{115}$Sb | 2E+4 | 6E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | W, see $^{115}$Sb | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| 51 | Antimony-131[2] | D, see $^{115}$Sb | 1E+4 Thyroid (2E+4) | 2E+4 Thyroid (4E+4) | 1E-5 - | - 6E-8 | - 2E-4 | - 2E-3 |
| | | W, see $^{115}$Sb | - - | 2E+4 Thyroid (4E+4) | 1E-5 - | 6E-8 | - - | - - |
| 52 | Tellurium-116 | D, all compounds except those given for W | 8E+3 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, oxides, hydroxides, and nitrates | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 52 | Tellurium-121m | D, see $^{116}$Te | 5E+2 Bone surf (7E+2) | 2E+2 Bone surf (4E+2) | 8E-8 - | - 5E-10 | - 1E-5 | - 1E-4 |
| | | W, see $^{116}$Te | - | 4E+2 | 2E-7 | 6E-10 | - | - |
| 52 | Tellurium-121 | D, see $^{116}$Te | 3E+3 | 4E+3 | 2E-6 | 6E-9 | 4E-5 | 4E-4 |
| | | W, see $^{116}$Te | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 52 | Tellurium-123m | D, see $^{116}$Te | 6E+2 Bone surf (1E+3) | 2E+2 Bone surf (5E+2) | 9E-8 - | - 8E-10 | - 1E-5 | - 1E-4 |
| | | W, see $^{116}$Te | - | 5E+2 | 2E-7 | 8E-10 | - | - |
| 52 | Tellurium-123 | D, see $^{116}$Te | 5E+2 Bone surf (1E+3) | 2E+2 Bone surf (5E+2) | 8E-8 - | - 7E-10 | - 2E-5 | - 2E-4 |
| | | W, see $^{116}$Te | - - | 4E+2 Bone surf (1E+3) | 2E-7 - | - 2E-9 | - - | - - |
| 52 | Tellurium-125m | D, see $^{116}$Te | 1E+3 Bone surf (1E+3) | 4E+2 Bone surf (1E+3) | 2E-7 - | - 1E-9 | - 2E-5 | - 2E-4 |
| | | W, see $^{116}$Te | - | 7E+2 | 3E-7 | 1E-9 | - | - |
| 52 | Tellurium-127m | D, see $^{116}$Te | 6E+2 | 3E+2 | 1E-7 | - | 9E-6 | 9E-5 |
| | | W, see $^{116}$Te | - - | Bone surf (4E+2) 3E+2 | - 1E-7 | 6E-10 4E-10 | - - | - - |
| 52 | Tellurium-127 | D, see $^{116}$Te | 7E+3 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{116}$Te | - | 2E+4 | 7E-6 | 2E-8 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 52 | Tellurium-129m | D, see $^{116}$Te | 5E+2 | 6E+2 | 3E-7 | 9E-10 | 7E-6 | 7E-5 |
| | | W, see $^{116}$Te | - | 2E+2 | 1E-7 | 3E-10 | - | - |
| 52 | Tellurium-129[2] | D, see $^{116}$Te | 3E+4 | 6E+4 | 3E-5 | 9E-8 | 4E-4 | 4E-3 |
| | | W, see $^{116}$Te | - | 7E+4 | 3E-5 | 1E-7 | - | - |
| 52 | Tellurium-131m | D, see $^{116}$Te | 3E+2 | 4E+2 | 2E-7 | - | - | - |
| | | | Thyroid (6E+2) | Thyroid (1E+3) | - | 2E-9 | 8E-6 | 8E-5 |
| | | W, see $^{116}$Te | - | 4E+2 | 2E-7 | - | - | - |
| | | | - | Thyroid (9E+2) | - | 1E-9 | - | - |
| 52 | Tellurium-131[2] | D, see $^{116}$Te | 3E+3 | 5E+3 | 2E-6 | - | - | - |
| | | | Thyroid (6E+3) | Thyroid (1E+4) | - | 2E-8 | 8E-5 | 8E-4 |
| | | W, see $^{116}$Te | - | 5E+3 | 2E-6 | - | - | - |
| | | | - | Thyroid (1E+4) | - | 2E-8 | - | - |
| 52 | Tellurium-132 | D, see $^{116}$Te | 2E+2 | 2E+2 | 9E-8 | - | - | - |
| | | | Thyroid (7E+2) | Thyroid (8E+2) | - | 1E-9 | 9E-6 | 9E-5 |
| | | W, see $^{116}$Te | - | 2E+2 | 9E-8 | - | - | - |
| | | | - | Thyroid (6E+2) | - | 9E-10 | - | - |
| 52 | Tellurium-133m[2] | D, see $^{116}$Te | 3E+3 | 5E+3 | 2E-6 | - | - | - |
| | | | Thyroid (6E+3) | Thyroid (1E+4) | - | 2E-8 | 9E-5 | 9E-4 |
| | | W, see $^{116}$Te | - | 5E+3 | 2E-6 | - | - | - |
| | | | - | Thyroid (1E+4) | - | 2E-8 | - | - |
| 52 | Tellurium-133[2] | D, see $^{116}$Te | 1E+4 | 2E+4 | 9E-6 | - | - | - |
| | | | Thyroid (3E+4) | Thyroid (6E+4) | - | 8E-8 | 4E-4 | 4E-3 |
| | | W, see $^{116}$Te | - | 2E+4 | 9E-6 | - | - | - |
| | | | - | Thyroid (6E+4) | - | 8E-8 | - | - |
| 52 | Tellurium-134[2] | D, see $^{116}$Te | 2E+4 | 2E+4 | 1E-5 | - | - | - |
| | | | Thyroid (2E+4) | Thyroid (5E+4) | - | 7E-8 | 3E-4 | 3E-3 |
| | | W, see $^{116}$Te | - | 2E+4 | 1E-5 | - | - | - |
| | | | - | Thyroid (5E+4) | - | 7E-8 | - | - |
| 53 | Iodine-120m[2] | D, all compounds | 1E+4 | 2E+4 | 9E-6 | 3E-8 | - | - |
| | | | Thyroid (1E+4) | - | - | - | 2E-4 | 2E-3 |
| 53 | Iodine-120[2] | D, all compounds | 4E+3 | 9E+3 | 4E-6 | - | - | - |
| | | | Thyroid (8E+3) | Thyroid (1E+4) | - | 2E-8 | 1E-4 | 1E-3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 53 | Iodine-121 | D, all compounds | 1E+4 Thyroid (3E+4) | 2E+4 Thyroid (5E+4) | 8E-6 - | - 7E-8 | - 4E-4 | - 4E-3 |
| 53 | Iodine-123 | D, all compounds | 3E+3 Thyroid (1E+4) | 6E+3 Thyroid (2E+4) | 3E-6 - | - 2E-8 | - 1E-4 | - 1E-3 |
| 53 | Iodine-124 | D, all compounds | 5E+1 Thyroid (2E+2) | 8E+1 Thyroid (3E+2) | 3E-8 - | - 4E-10 | - 2E-6 | - 2E-5 |
| 53 | Iodine-125 | D, all compounds | 4E+1 Thyroid (1E+2) | 6E+1 Thyroid (2E+2) | 3E-8 - | - 3E-10 | - 2E-6 | - 2E-5 |
| 53 | Iodine-126 | D, all compounds | 2E+1 Thyroid (7E+1) | 4E+1 Thyroid (1E+2) | 1E-8 - | - 2E-10 | - 1E-6 | - 1E-5 |
| 53 | Iodine-128[2] | D, all compounds | 4E+4 St wall (6E+4) | 1E+5 - | 5E-5 - | 2E-7 - | - 8E-4 | - 8E-3 |
| 53 | Iodine-129 | D, all compounds | 5E+0 Thyroid (2E+1) | 9E+0 Thyroid (3E+1) | 4E-9 - | - 4E-11 | - 2E-7 | - 2E-6 |
| 53 | Iodine-130 | D, all compounds | 4E+2 Thyroid (1E+3) | 7E+2 Thyroid (2E+3) | 3E-7 - | - 3E-9 | - 2E-5 | - 2E-4 |
| 53 | Iodine-131 | D, all compounds | 3E+1 Thyroid (9E+1) | 5E+1 Thyroid (2E+2) | 2E-8 - | - 2E-10 | - 1E-6 | - 1E-5 |
| 53 | Iodine- 132m[2] | D, all compounds | 4E+3 Thyroid (1E+4) | 8E+3 Thyroid (2E+4) | 4E-6 - | - 3E-8 | - 1E-4 | - 1E-3 |
| 53 | Iodine-132 | D, all compounds | 4E+3 Thyroid (9E+3) | 8E+3 Thyroid (1E+4) | 3E-6 - | - 2E-8 | - 1E-4 | - 1E-3 |
| 53 | Iodine-133 | D, all compounds | 1E+2 Thyroid (5E+2) | 3E+2 Thyroid (9E+2) | 1E-7 - | - 1E-9 | - 7E-6 | - 7E-5 |
| 53 | Iodine-134[2] | D, all compounds | 2E+4 Thyroid (3E+4) | 5E+4 - | 2E-5 - | 6E-8 - | - 4E-4 | - 4E-3 |
| 53 | Iodine-135 | D, all compounds | 8E+2 Thyroid (3E+3) | 2E+3 Thyroid (4E+3) | 7E-7 - | - 6E-9 | - 3E-5 | - 3E-4 |
| 54 | Xenon-120[2] | Submersion[1] | - | - | 1E-5 | 4E-8 | - | - |
| 54 | Xenon-121[2] | Submersion[1] | - | - | 2E-6 | 1E-8 | - | - |
| 54 | Xenon-122 | Submersion[1] | - | - | 7E-5 | 3E-7 | - | - |
| 54 | Xenon-123 | Submersion[1] | - | - | 6E-6 | 3E-8 | - | - |
| 54 | Xenon-125 | Submersion[1] | - | - | 2E-5 | 7E-8 | - | - |
| 54 | Xenon-127 | Submersion[1] | - | - | 1E-5 | 6E-8 | - | - |
| 54 | Xenon-129m | Submersion[1] | - | - | 2E-4 | 9E-7 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I: Col. 2 Inhalation ALI (μCi) | Table I: Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 54 | Xenon-131m | Submersion[1] | - | - | 4E-4 | 2E-6 | - | - |
| 54 | Xenon-133m | Submersion[1] | - | - | 1E-4 | 6E-7 | - | - |
| 54 | Xenon-133 | Submersion[1] | - | - | 1E-4 | 5E-7 | - | - |
| 54 | Xenon- 135m[2] | Submersion[1] | - | - | 9E-6 | 4E-8 | - | - |
| 54 | Xenon-135 | Submersion[1] | - | - | 1E-5 | 7E-8 | - | - |
| 54 | Xenon-138[2] | Submersion[1] | - | - | 4E-6 | 2E-8 | - | - |
| 55 | Cesium-125[2] | D, all compounds | 5E+4 | 1E+5 | 6E-5 | 2E-7 | - | - |
| | | | St wall (9E+4) | - | - | - | 1E-3 | 1E-2 |
| 55 | Cesium-127 | D, all compounds | 6E+4 | 9E+4 | 4E-5 | 1E-7 | 9E-4 | 9E-3 |
| 55 | Cesium-129 | D, all compounds | 2E+4 | 3E+4 | 1E-5 | 5E-8 | 3E-4 | 3E-3 |
| 55 | Cesium-130[2] | D, all compounds | 6E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St wall (1E+5) | - | - | - | 1E-3 | 1E-2 |
| 55 | Cesium-131 | D, all compounds | 2E+4 | 3E+4 | 1E-5 | 4E-8 | 3E-4 | 3E-3 |
| 55 | Cesium-132 | D, all compounds | 3E+3 | 4E+3 | 2E-6 | 6E-9 | 4E-5 | 4E-4 |
| 55 | Cesium- 134m | D, all compounds | 1E+5 | 1E+5 | 6E-5 | 2E-7 | - | - |
| | | | St wall (1E+5) | - | - | - | 2E-3 | 2E-2 |
| 55 | Cesium-134 | D, all compounds | 7E+1 | 1E+2 | 4E-8 | 2E-10 | 9E-7 | 9E-6 |
| 55 | Cesium- 135m[2] | D, all compounds | 1E+5 | 2E+5 | 8E-5 | 3E-7 | 1E-3 | 1E-2 |
| 55 | Cesium-135 | D, all compounds | 7E+2 | 1E+3 | 5E-7 | 2E-9 | 1E-5 | 1E-4 |
| 55 | Cesium-136 | D, all compounds | 4E+2 | 7E+2 | 3E-7 | 9E-10 | 6E-6 | 6E-5 |
| 55 | Cesium-137 | D, all compounds | 1E+2 | 2E+2 | 6E-8 | 2E-10 | 1E-6 | 1E-5 |
| 55 | Cesium-138[2] | D, all compounds | 2E+4 | 6E+4 | 2E-5 | 8E-8 | - | - |
| | | | St wall (3E+4) | - | - | - | 4E-4 | 4E-3 |
| 56 | Barium-126[2] | D, all compounds | 6E+3 | 2E+4 | 6E-6 | 2E-8 | 8E-5 | 8E-4 |
| 56 | Barium-128 | D, all compounds | 5E+2 | 2E+3 | 7E-7 | 2E-9 | 7E-6 | 7E-5 |
| 56 | Barium-131m[2] | D, all compounds | 4E+5 | 1E+6 | 6E-4 | 2E-6 | - | - |
| | | | St wall (5E+5) | - | - | - | 7E-3 | 7E-2 |
| 56 | Barium-131 | D, all compounds | 3E+3 | 8E+3 | 3E-6 | 1E-8 | 4E-5 | 4E-4 |
| 56 | Barium-133m | D, all compounds | 2E+3 | 9E+3 | 4E-6 | 1E-8 | - | - |
| | | | LLI wall (3E+3) | - | - | - | 4E-5 | 4E-4 |
| 56 | Barium-133 | D, all compounds | 2E+3 | 7E+2 | 3E-7 | 9E-10 | 2E-5 | 2E-4 |
| 56 | Barium-135m | D, all compounds | 3E+3 | 1E+4 | 5E-6 | 2E-8 | 4E-5 | 4E-4 |
| 56 | Barium-139[2] | D, all compounds | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 2E-4 | 2E-3 |
| 56 | Barium-140 | D, all compounds | 5E+2 | 1E+3 | 6E-7 | 2E-9 | - | - |
| | | | LLI wall (6E+2) | - | - | - | 8E-6 | 8E-5 |
| 56 | Barium-141[2] | D, all compounds | 2E+4 | 7E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| 56 | Barium-142[2] | D, all compounds | 5E+4 | 1E+5 | 6E-5 | 2E-7 | 7E-4 | 7E-3 |
| 57 | Lanthanum-131[2] | D, all compounds except those given for W | 5E+4 | 1E+5 | 5E-5 | 2E-7 | 6E-4 | 6E-3 |
| | | W, oxides and hydroxides | - | 2E+5 | 7E-5 | 2E-7 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values: Col. 2 Inhalation ALI (μCi) | Table I Occupational Values: Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II Effluent Concentrations: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 57 | Lanthanum-132 | D, see $^{131}$La | 3E+3 | 1E+4 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, see $^{131}$La | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 57 | Lanthanum-135 | D, see $^{131}$La | 4E+4 | 1E+5 | 4E-5 | 1E-7 | 5E-4 | 5E-3 |
| | | W, see $^{131}$La | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 57 | Lanthanum-137 | D, see $^{131}$La | 1E+4 | 6E+1 | 3E-8 | - | 2E-4 | 2E-3 |
| | | | - | Liver (7E+1) | - | 1E-10 | - | - |
| | | W, see $^{131}$La | - | 3E+2 | 1E-7 | - | - | - |
| | | | - | Liver (3E+2) | - | 4E-10 | - | - |
| 57 | Lanthanum-138 | D, see $^{131}$La | 9E+2 | 4E+0 | 1E-9 | 5E-12 | 1E-5 | 1E-4 |
| | | W, see $^{131}$La | - | 1E+1 | 6E-9 | 2E-11 | - | - |
| 57 | Lanthanum-140 | D, see $^{131}$La | 6E+2 | 1E+3 | 6E-7 | 2E-9 | 9E-6 | 9E-5 |
| | | W, see $^{131}$La | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 57 | Lanthanum-141 | D, see $^{131}$La | 4E+3 | 9E+3 | 4E-6 | 1E-8 | 5E-5 | 5E-4 |
| | | W, see $^{131}$La | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 57 | Lanthanum-142[2] | D, see $^{131}$La | 8E+3 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{131}$La | - | 3E+4 | 1E-5 | 5E-8 | - | - |
| 57 | Lanthanum-143[2] | D, see $^{131}$La | 4E+4 | 1E+5 | 4E-5 | 1E-7 | - | - |
| | | | St wall (4E+4) | - | - | - | 5E-4 | 5E-3 |
| | | W, see $^{131}$La | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 58 | Cerium-134 | W, all compounds except those given for Y | 5E+2 | 7E+2 | 3E-7 | 1E-9 | - | - |
| | | | LLI wall (6E+2) | - | - | - | 8E-6 | 8E-5 |
| | | Y, oxides, hydroxides, and fluorides | - | 7E+2 | 3E-7 | 9E-10 | - | - |
| 58 | Cerium-135 | W, see $^{134}$Ce | 2E+3 | 4E+3 | 2E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{134}$Ce | - | 4E+3 | 1E-6 | 5E-9 | - | - |
| 58 | Cerium-137m | W, see $^{134}$Ce | 2E+3 | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| | | Y, see $^{134}$Ce | - | 4E+3 | 2E-6 | 5E-9 | - | - |
| 58 | Cerium-137 | W, see $^{134}$Ce | 5E+4 | 1E+5 | 6E-5 | 2E-7 | 7E-4 | 7E-3 |
| | | Y, see $^{134}$Ce | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 58 | Cerium-139 | W, see $^{134}$Ce | 5E+3 | 8E+2 | 3E-7 | 1E-9 | 7E-5 | 7E-4 |
| | | Y, see $^{134}$Ce | - | 7E+2 | 3E-7 | 9E-10 | - | - |
| 58 | Cerium-141 | W, see $^{134}$Ce | 2E+3 | 7E+2 | 3E-7 | 1E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| | | Y, see $^{134}$Ce | - | 6E+2 | 2E-7 | 8E-10 | - | - |
| 58 | Cerium-143 | W, see $^{134}$Ce | 1E+3 | 2E+3 | 8E-7 | 3E-9 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{134}$Ce | - | 2E+3 | 7E-7 | 2E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 58 | Cerium-144 | W, see $^{134}$Ce | 2E+2 | 3E+1 | 1E-8 | 4E-11 | - | - |
| | | | LLI wall (3E+2) | - | - | - | 3E-6 | 3E-5 |
| | | Y, see $^{134}$Ce | - | 1E+1 | 6E-9 | 2E-11 | - | - |
| 59 | Praseodymium-136[2] | W, all compounds except those given for Y | 5E+4 | 2E+5 | 1E-4 | 3E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 1E-3 | 1E-2 |
| | | Y, oxides, hydroxides, carbides, and fluorides | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| 59 | Praseodymium-137[2] | W, see $^{136}$Pr | 4E+4 | 2E+5 | 6E-5 | 2E-7 | 5E-4 | 5E-3 |
| | | Y, see $^{136}$Pr | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 59 | Praseodymium-138m | W, see $^{136}$Pr | 1E+4 | 5E+4 | 2E-5 | 8E-8 | 1E-4 | 1E-3 |
| | | Y, see $^{136}$Pr | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 59 | Praseodymium-139 | W, see $^{136}$Pr | 4E+4 | 1E+5 | 5E-5 | 2E-7 | 6E-4 | 6E-3 |
| | | Y, see $^{136}$Pr | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 59 | Praseodymium-142m[2] | W, see $^{136}$Pr | 8E+4 | 2E+5 | 7E-5 | 2E-7 | 1E-3 | 1E-2 |
| | | Y, see $^{136}$Pr | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 59 | Praseodymium-142 | W, see $^{136}$Pr | 1E+3 | 2E+3 | 9E-7 | 3E-9 | 1E-5 | 1E-4 |
| | | Y, see $^{136}$Pr | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 59 | Praseodymium-143 | W, see $^{136}$Pr | 9E+2 | 8E+2 | 3E-7 | 1E-9 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{136}$Pr | - | 7E+2 | 3E-7 | 9E-10 | - | - |
| 59 | Praseodymium-144[2] | W, see $^{136}$Pr | 3E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | | St wall (4E+4) | - | - | - | 6E-4 | 6E-3 |
| | | Y, see $^{136}$Pr | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 59 | Praseodymium-145 | W, see $^{136}$Pr | 3E+3 | 9E+3 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | Y, see $^{136}$Pr | - | 8E+3 | 3E-6 | 1E-8 | - | - |
| 59 | Praseodymium-147[2] | W, see $^{136}$Pr | 5E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St wall (8E+4) | - | - | - | 1E-3 | 1E-2 |
| | | Y, see $^{136}$Pr | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 60 | Neodymium-136[2] | W, all compounds except those given for Y | 1E+4 | 6E+4 | 2E-5 | 8E-8 | 2E-4 | 2E-3 |
| | | Y, oxides, hydroxides, carbides, and fluorides | - | 5E+4 | 2E-5 | 8E-8 | - | - |
| 60 | Neodymium-138 | W, see $^{136}$Nd | 2E+3 | 6E+3 | 3E-6 | 9E-9 | 3E-5 | 3E-4 |
| | | Y, see $^{136}$Nd | - | 5E+3 | 2E-6 | 7E-9 | - | - |
| 60 | Neodymium-139m | W, see $^{136}$Nd | 5E+3 | 2E+4 | 7E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | Y, see $^{136}$Nd | - | 1E+4 | 6E-6 | 2E-8 | - | - |
| 60 | Neodymium-139[2] | W, see $^{136}$Nd | 9E+4 | 3E+5 | 1E-4 | 5E-7 | 1E-3 | 1E-2 |
| | | Y, see $^{136}$Nd | - | 3E+5 | 1E-4 | 4E-7 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 60 | Neodymium-141 | W, see $^{136}$Nd | 2E+5 | 7E+5 | 3E-4 | 1E-6 | 2E-3 | 2E-2 |
| | | Y, see $^{136}$Nd | - | 6E+5 | 3E-4 | 9E-7 | - | - |
| 60 | Neodymium-147 | W, see $^{136}$Nd | 1E+3 | 9E+2 | 4E-7 | 1E-9 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{136}$Nd | - | 8E+2 | 4E-7 | 1E-9 | - | - |
| 60 | Neodymium-149[2] | W, see $^{136}$Nd | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| | | Y, see $^{136}$Nd | - | 2E+4 | 1E-5 | 3E-8 | - | - |
| 60 | Neodymium-151[2] | W, see $^{136}$Nd | 7E+4 | 2E+5 | 8E-5 | 3E-7 | 9E-4 | 9E-3 |
| | | Y, see $^{136}$Nd | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 61 | Promethium-141[2] | W, all compounds except those given for Y | 5E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St wall (6E+4) | - | - | - | 8E-4 | 8E-3 |
| | | Y, oxides, hydroxides, carbides, and fluorides | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| 61 | Promethium-143 | W, see $^{141}$Pm | 5E+3 | 6E+2 | 2E-7 | 8E-10 | 7E-5 | 7E-4 |
| | | Y, see $^{141}$Pm | - | 7E+2 | 3E-7 | 1E-9 | - | - |
| 61 | Promethium-144 | W, see $^{141}$Pm | 1E+3 | 1E+2 | 5E-8 | 2E-10 | 2E-5 | 2E-4 |
| | | Y, see $^{141}$Pm | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| 61 | Promethium-145 | W, see $^{141}$Pm | 1E+4 | 2E+2 | 7E-8 | - | 1E-4 | 1E-3 |
| | | | - | Bone surf (2E+2) | - | 3E-10 | - | - |
| | | Y, see $^{141}$Pm | - | 2E+2 | 8E-8 | 3E-10 | - | - |
| 61 | Promethium-146 | W, see $^{141}$Pm | 2E+3 | 5E+1 | 2E-8 | 7E-11 | 2E-5 | 2E-4 |
| | | Y see $^{141}$Pm | - | 4E+1 | 2E-8 | 6E-11 | - | - |
| 61 | Promethium-147 | W see $^{141}$Pm | 4E+3 | 1E+2 | 5E-8 | - | - | - |
| | | | LLI wall (5E+3) | Bone surf (2E+2) | - | 3E-10 | 7E-5 | 7E-4 |
| | | Y, see $^{141}$Pm | - | 1E+2 | 6E-8 | 2E-10 | - | - |
| 61 | Promethium-148m | W, see $^{141}$Pm | 7E+2 | 3E+2 | 1E-7 | 4E-10 | 1E-5 | 1E-4 |
| | | Y, see $^{141}$Pm | - | 3E+2 | 1E-7 | 5E-10 | - | - |
| 61 | Promethium-148 | W, see $^{141}$Pm | 4E+2 | 5E+2 | 2E-7 | 8E-10 | - | - |
| | | | LLI wall (5E+2) | - | - | - | 7E-6 | 7E-5 |
| | | Y, see $^{141}$Pm | - | 5E+2 | 2E-7 | 7E-10 | - | - |
| 0 | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{141}$Pm | - | 2E+3 | 8E-7 | 2E-9 | - | - |
| 61 | Promethium-150 | W, see $^{141}$Pm | 5E+3 | 2E+4 | 8E-6 | 3E-8 | 7E-5 | 7E-4 |
| | | Y, see $^{141}$Pm | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| 61 | Promethium-151 | W, see $^{141}$Pm | 2E+3 | 4E+3 | 1E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{141}$Pm | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 62 | Samarium-141m[2] | W, all compounds | 3E+4 | 1E+5 | 4E-5 | 1E-7 | 4E-4 | 4E-3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 62 | Samarium-141[2] | W, all compounds | 5E+4 St wall (6E+4) | 2E+5 - | 8E-5 - | 2E-7 - | - 8E-4 | - 8E-3 |
| 62 | Samarium-142[2] | W, all compounds | 8E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| 62 | Samarium-145 | W, all compounds | 6E+3 | 5E+2 | 2E-7 | 7E-10 | 8E-5 | 8E-4 |
| 62 | Samarium-146 | W, all compounds | 1E+1 Bone surf (3E+1) | 4E2 Bone surf (6E-2) | 1E-11 - | - 9E-14 | - 3E-7 | - 3E-6 |
| 62 | Samarium-147 | W, all compounds | 2E+1 Bone surf (3E+1) | 4E2 Bone surf (7E-2) | 2E-11 - | - 1E-13 | - 4E-7 | - 4E-6 |
| 62 | Samarium-151 | W, all compounds | 1E+4 LLI wall (1E+4) | 1E+2 Bone surf (2E+2) | 4E-8 - | - 2E-10 | - 2E-4 | - 2E-3 |
| 62 | Samarium-153 | W, all compounds | 2E+3 LLI wall (2E+3) | 3E+3 - | 1E-6 - | 4E-9 - | - 3E-5 | - 3E-4 |
| 62 | Samarium-155[2] | W, all compounds | 6E+4 St wall (8E+4) | 2E+5 - | 9E-5 - | 3E-7 - | - 1E-3 | - 1E-2 |
| 62 | Samarium-156 | W, all compounds | 5E+3 | 9E+3 | 4E-6 | 1E-8 | 7E-5 | 7E-4 |
| 63 | Europium-145 | W, all compounds | 2E+3 | 2E+3 | 8E-7 | 3E-9 | 2E-5 | 2E-4 |
| 63 | Europium-146 | W, all compounds | 1E+3 | 1E+3 | 5E-7 | 2E-9 | 1E-5 | 1E-4 |
| 63 | Europium-147 | W, all compounds | 3E+3 | 2E+3 | 7E-7 | 2E-9 | 4E-5 | 4E-4 |
| 63 | Europium-148 | W, all compounds | 1E+3 | 4E+2 | 1E-7 | 5E-10 | 1E-5 | 1E-4 |
| 63 | Europium-149 | W, all compounds | 1E+4 | 3E+3 | 1E-6 | 4E-9 | 2E-4 | 2E-3 |
| 63 | Europium-150 (12.62 h) | W, all compounds | 3E+3 | 8E+3 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| 63 | Europium-150 (34.2 y) | W, all compounds | 8E+2 | 2E+1 | 8E-9 | 3E-11 | 1E-5 | 1E-4 |
| 63 | Europium-152m | W, all compounds | 3E+3 | 6E+3 | 3E-6 | 9E-9 | 4E-5 | 4E-4 |
| 63 | Europium-152 | W, all compounds | 8E+2 | 2E+1 | 1E-8 | 3E-11 | 1E-5 | 1E-4 |
| 63 | Europium-154 | W, all compounds | 5E+2 | 2E+1 | 8E-9 | 3E-11 | 7E-6 | 7E-5 |
| 63 | Europium-155 | W, all compounds | 4E+3 - | 9E+1 Bone surf (1E+2) | 4E-8 - | - 2E-10 | 5E-5 - | 5E-4 - |
| 63 | Europium-156 | W, all compounds | 6E+2 | 5E+2 | 2E-7 | 6E-10 | 8E-6 | 8E-5 |
| 63 | Europium-157 | W, all compounds | 2E+3 | 5E+3 | 2E-6 | 7E-9 | 3E-5 | 3E-4 |
| 63 | Europium-158[2] | W, all compounds | 2E+4 | 6E+4 | 2E-5 | 8E-8 | 3E-4 | 3E-3 |
| 64 | Gadolinium-145[2] | D, all compounds except those given for W | 5E+4 St wall (5E+4) | 2E+5 - | 6E-5 - | 2E-7 - | - 6E-4 | - 6E-3 |
| | | W, oxides, hydroxides, and fluorides | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| 64 | Gadolinium-146 | D, see $^{145}$Gd | 1E+3 | 1E+2 | 5E-8 | 2E-10 | 2E-5 | 2E-4 |
| | | W, see $^{145}$Gd | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| 64 | Gadolinium-147 | D, see $^{145}$Gd | 2E+3 | 4E+3 | 2E-6 | 6E-9 | 3E-5 | 3E-4 |
| | | W, see $^{145}$Gd | - | 4E+3 | 1E-6 | 5E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 64 | Gadolinium-148 | D, see $^{145}$Gd | 1E+1 | 8E+3 | 3E-12 | - | - | - |
| | | | Bone surf (2E+1) | Bone surf (2E+2) | - | 2E-14 | 3E-7 | 3E-6 |
| | | W, see $^{145}$Gd | - | 3E-2 | 1E-11 | - | - | - |
| | | | - | Bone surf (6E-2) | - | 8E-14 | - | - |
| 64 | Gadolinium-149 | D, see $^{145}$Gd | 3E+3 | 2E+3 | 9E-7 | 3E-9 | 4E-5 | 4E-4 |
| | | W, see $^{145}$Gd | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 64 | Gadolinium-151 | D, see $^{145}$Gd | 6E+3 | 4E+2 | 2E-7 | - | 9E-5 | 9E-4 |
| | | | - | Bone surf (6E+2) | - | 9E-10 | - | - |
| | | W, see $^{145}$Gd | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 64 | Gadolinium-152 | D, see $^{145}$Gd | 2E+1 | 1E-2 | 4E-12 | - | - | - |
| | | | Bone surf (3E+1) | Bone surf (2E-2) | - | 3E-14 | 4E-7 | 4E-6 |
| | | W, see $^{145}$Gd | - | 4E-2 | 2E-11 | - | | - |
| | | | - | Bone surf (8E-2) | - | 1E-13 | - | - |
| 64 | Gadolinium-153 | D, see $^{145}$Gd | 5E+3 | 1E+2 | 6E-8 | - | 6E-5 | 6E-4 |
| | | | - | Bone surf (2E+2) | - | 3E-10 | - | - |
| | | W, see $^{145}$Gd | - | 6E+2 | 2E-7 | 8E-10 | - | - |
| 64 | Gadolinium-159 | D, see $^{145}$Gd | 3E+3 | 8E+3 | 3E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, see $^{145}$Gd | - | 6E+3 | 2E-6 | 8E-9 | - | - |
| 65 | Terbium-147[2] | W, all compounds | 9E+3 | 3E+4 | 1E-5 | 5E-8 | 1E-4 | 1E-3 |
| 65 | Terbium-149 | W, all compounds | 5E+3 | 7E+2 | 3E-7 | 1E-9 | 7E-5 | 7E-4 |
| 65 | Terbium-150 | W, all compounds | 5E+3 | 2E+4 | 9E-6 | 3E-8 | 7E-5 | 7E-4 |
| 65 | Terbium-151 | W, all compounds | 4E+3 | 9E+3 | 4E-6 | 1E-8 | 5E-5 | 5E-4 |
| 65 | Terbium-153 | W, all compounds | 5E+3 | 7E+3 | 3E-6 | 1E-8 | 7E-5 | 7E-4 |
| 65 | Terbium-154 | W, all compounds | 2E+3 | 4E+3 | 2E-6 | 6E-9 | 2E-5 | 2E-4 |
| 65 | Terbium-155 | W, all compounds | 6E+3 | 8E+3 | 3E-6 | 1E-8 | 8E-5 | 8E-4 |
| 65 | Terbium-156m (5.0 h) | W, all compounds | 2E+4 | 3E+4 | 1E-5 | 4E-8 | 2E-4 | 2E-3 |
| 65 | Terbium-156m (24.4 h) | W, all compounds | 7E+3 | 8E+3 | 3E-6 | 1E-8 | 1E-4 | 1E-3 |
| 65 | Terbium-156 | W, all compounds | 1E+3 | 1E+3 | 6E-7 | 2E-9 | 1E-5 | 1E-4 |
| 65 | Terbium-157 | W, all compounds | 5E+4 | 3E+2 | 1E-7 | - | - | - |
| | | | LLI wall (5E+4) | Bone surf (6E+2) | - | 8E-10 | 7E-4 | 7E-3 |
| 65 | Terbium-158 | W, all compounds | 1E+3 | 2E+1 | 8E-9 | 3E-11 | 2E-5 | 2E-4 |
| 65 | Terbium-160 | W, all compounds | 8E+2 | 2E+2 | 9E-8 | 3E-10 | 1E-5 | 1E-4 |
| 65 | Terbium-161 | W, all compounds | 2E+3 | 2E+3 | 7E-7 | 2E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| 66 | Dysprosium-155 | W, all compounds | 9E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| 66 | Dysprosium-157 | W, all compounds | 2E+4 | 6E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| 66 | Dysprosium-159 | W, all compounds | 1E+4 | 2E+3 | 1E-6 | 3E-9 | 2E-4 | 2E-3 |
| 66 | Dysprosium-165 | W, all compounds | 1E+4 | 5E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 66 | Dysprosium-166 | W, all compounds | 6E+2 | 7E+2 | 3E-7 | 1E-9 | - | - |
| | | | LLI wall (8E+2) | - | - | - | 1E-5 | 1E-4 |
| 67 | Holmium-155[2] | W, all compounds | 4E+4 | 2E+5 | 6E-5 | 2E-7 | 6E-4 | 6E-3 |
| 67 | Holmium-157[2] | W, all compounds | 3E+5 | 1E+6 | 6E-4 | 2E-6 | 4E-3 | 4E-2 |
| 67 | Holmium-159[2] | W, all compounds | 2E+5 | 1E+6 | 4E-4 | 1E-6 | 3E-3 | 3E-2 |
| 67 | Holmium-161 | W, all compounds | 1E+5 | 4E+5 | 2E-4 | 6E-7 | 1E-3 | 1E-2 |
| 67 | Holmium- 162m[2] | W, all compounds | 5E+4 | 3E+5 | 1E-4 | 4E-7 | 7E-4 | 7E-3 |
| 67 | Holmium-162[2] | W, all compounds | 5E+5 | 2E+6 | 1E-3 | 3E-6 | - | - |
| | | | St wall (8E+5) | - | - | - | 1E-2 | 1E-1 |
| 67 | Holmium-164m[2] | W, all compounds | 1E+5 | 3E+5 | 1E-4 | 4E-7 | 1E-3 | 1E-2 |
| 67 | Holmium-164[2] | W, all compounds | 2E+5 | 6E+5 | 3E-4 | 9E-7 | - | - |
| | | | St wall (2E+5) | - | - | - | 3E-3 | 3E-2 |
| 67 | Holmium-166m | W, all compounds | 6E+2 | 7E+0 | 3E-9 | 9E-12 | 9E-6 | 9E-5 |
| 67 | Holmium-166 | W, all compounds | 9E+2 | 2E+3 | 7E-7 | 2E-9 | - | - |
| | | | LLI wall (9E+2) | - | - | - | 1E-5 | 1E-4 |
| 67 | Holmium-167 | W, all compounds | 2E+4 | 6E+4 | 2E-5 | 8E-8 | 2E-4 | 2E-3 |
| 68 | Erbium-161 | W, all compounds | 2E+4 | 6E+4 | 3E-5 | 9E-8 | 2E-4 | 2E-3 |
| 68 | Erbium-165 | W, all compounds | 6E+4 | 2E+5 | 8E-5 | 3E-7 | 9E-4 | 9E-3 |
| 68 | Erbium-169 | W, all compounds | 3E+3 | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | | LLI wall (4E+3) | - | - | - | 5E-5 | 5E-4 |
| 68 | Erbium-171 | W, all compounds | 4E+3 | 1E+4 | 4E-6 | 1E-8 | 5E-5 | 5E-4 |
| 68 | Erbium-172 | W, all compounds | 1E+3 | 1E+3 | 6E-7 | 2E-9 | - | - |
| | | | LLI wall (E+3) | - | - | - | 2E-5 | 2E-4 |
| 69 | Thulium-162[2] | W, all compounds | 7E+4 | 3E+5 | 1E-4 | 4E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 1E-3 | 1E-2 |
| 69 | Thulium-166 | W, all compounds | 4E+3 | 1E+4 | 6E-6 | 2E-8 | 6E-5 | 6E-4 |
| 69 | Thulium-167 | W, all compounds | 2E+3 | 2E+3 | 8E-7 | 3E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| 69 | Thulium-170 | W, all compounds | 8E+2 | 2E+2 | 9E-8 | 3E-10 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 1E-5 | 1E-4 |
| 69 | Thulium-171 | W, all compounds | 1E+4 | 3E+2 | 1E-7 | - | - | - |
| | | | LLI wall (1E+4) | Bone surf (6E+2) | - | 8E-10 | 2E-4 | 2E-3 |
| 69 | Thulium-172 | W, all compounds | 7E+2 | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | | LLI wall (8E+2) | - | - | - | 1E-5 | 1E-4 |
| 69 | Thulium-173 | W, all compounds | 4E+3 | 1E+4 | 5E-6 | 2E-8 | 6E-5 | 6E-4 |
| 69 | Thulium-175[2] | W, all compounds | 7E+4 | 3E+5 | 1E-4 | 4E-7 | - | - |
| | | | St wall (9E+4) | - | - | - | 1E-3 | 1E-2 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 70 | Ytterbium-162[2] | W, all compounds except those given for Y | 7E+4 | 3E+5 | 1E-4 | 4E-7 | 1E-3 | 1E-2 |
| | | Y, oxides, hydroxides, and fluorides | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| 70 | Ytterbium-166 | W, see $^{162}$Yb | 1E+3 | 2E+3 | 8E-7 | 3E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{162}$Yb | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 70 | Ytterbium-167[2] | W, see $^{162}$Yb | 3E+5 | 8E+5 | 3E-4 | 1E-6 | 4E-3 | 4E-2 |
| | | Y, see $^{162}$Yb | - | 7E+5 | 3E-4 | 1E-6 | - | - |
| 70 | Ytterbium-169 | W, see $^{162}$Yb | 2E+3 | 8E+2 | 4E-7 | 1E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{162}$Yb | - | 7E+2 | 3E-7 | 1E-9 | - | - |
| 70 | Ytterbium-175 | W, see $^{162}$Yb | 3E+3 | 4E+3 | 1E-6 | 5E-9 | - | - |
| | | | LLI wall (3E+3) | - | - | - | 4E-5 | 4E-4 |
| | | Y, see $^{162}$Yb | - | 3E+3 | 1E-6 | 5E-9 | - | - |
| 70 | Ytterbium-177[2] | W, see $^{162}$Yb | 2E+4 | 5E+4 | 2E-5 | 7E-8 | 2E-4 | 2E-3 |
| | | Y, see $^{162}$Yb | - | 5E+4 | 2E-5 | 6E-8 | - | - |
| 70 | Ytterbium-178[2] | W, see $^{162}$Yb | 1E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | Y, see $^{162}$Yb | - | 4E+4 | 2E-5 | 5E-8 | - | - |
| 71 | Lutetium-169 | W, all compounds except those given for Y | 3E+3 | 4E+3 | 2E-6 | 6E-9 | 3E-5 | 3E-4 |
| | | Y, oxides, hydroxides, and fluorides | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| 71 | Lutetium-170 | W, see $^{169}$Lu | 1E+3 | 2E+3 | 9E-7 | 3E-9 | 2E-5 | 2E-4 |
| | | Y, see $^{169}$Lu | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 71 | Lutetium-171 | W, see $^{169}$Lu | 2E+3 | 2E+3 | 8E-7 | 3E-9 | 3E-5 | 3E-4 |
| | | Y, see $^{169}$Lu | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 71 | Lutetium-172 | W, see $^{169}$Lu | 1E+3 | 1E+3 | 5E-7 | 2E-9 | 1E-5 | 1E-4 |
| | | Y, see $^{169}$Lu | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 71 | Lutetium-173 | W, see $^{169}$Lu | 5E+3 | 3E+2 | 1E-7 | - | 7E-5 | 7E-4 |
| | | | - | Bone surf (5E+2) | - | 6E-10 | - | - |
| | | Y, see $^{169}$Lu | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| 71 | Lutetium-174m | W, see $^{169}$Lu | 2E+3 | 2E+2 | 1E-7 | - | - | - |
| | | | LLI wall (3E+3) | Bone surf (3E+2) | - | 5E-10 | 4E-5 | 4E-4 |
| | | Y, see $^{169}$Lu | - | 2E+2 | 9E-8 | 3E-10 | - | - |
| 71 | Lutetium-174 | W, see $^{169}$Lu | 5E+3 | 1E+2 | 5E-8 | - | 7E-5 | 7E-4 |
| | | | - | Bone surf (2E+2) | - | 3E-10 | - | - |
| | | Y, see $^{169}$Lu | - | 2E+2 | 6E-8 | 2E-10 | - | - |
| 71 | Lutetium-176m | W, see $^{169}$Lu | 8E+3 | 3E+4 | 1E-5 | 3E-8 | 1E-4 | 1E-3 |
| | | Y, see $^{169}$Lu | - | 2E+4 | 9E-6 | 3E-8 | - | - |
| 71 | Lutetium-176 | W, see $^{169}$Lu | 7E+2 | 5E+0 | 2E-9 | - | 1E-5 | 1E-4 |
| | | | - | Bone surf (1E+1) | - | 2E-11 | - | - |
| | | Y, see $^{169}$Lu | - | 8E+0 | 3E-9 | 1E-1 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 71 | Lutetium-177m | W, see $^{169}$Lu | 7E+2 | 1E+2 | 5E-8 | - | 1E-5 | 1E-4 |
| | | | - | Bone surf (1E+2) | - | 2E-10 | - | - |
| | | Y, see $^{169}$Lu | - | 8E+1 | 3E-8 | 1E-10 | - | - |
| 71 | Lutetium-177 | W, see $^{169}$Lu | 2E+3 | 2E+3 | 9E-7 | 3E-9 | - | - |
| | | | - | LLI wall (3E+3) | - | - | 4E-5 | 4E-4 |
| | | Y, see $^{169}$Lu | - | 2E+3 | 9E-7 | 3E-9 | - | - |
| 71 | Lutetium-178m[2] | W, see $^{169}$Lu | 5E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | - | St. wall (6E+4) | - | - | 8E-4 | 8E-3 |
| | | Y, see $^{169}$Lu | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| 71 | Lutetium-178[2] | W, see $^{169}$Lu | 4E+4 | 1E+5 | 5E-5 | 2E-7 | - | - |
| | | | - | St wall (4E+4) | - | - | 6E-4 | 6E-3 |
| | | Y, see $^{169}$Lu | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 71 | Lutetium-179 | W, see $^{169}$Lu | 6E+3 | 2E+4 | 8E-6 | 3E-8 | 9E-5 | 9E-4 |
| | | Y, see $^{169}$Lu | - | 2E+4 | 6E-6 | 3E-8 | - | - |
| 72 | Hafnium-170 | D, all compounds except those given for W | 3E+3 | 6E+3 | 2E-6 | 8E-9 | 4E-5 | 4E-4 |
| | | W, oxides, hydroxides, carbides, and nitrates | - | 5E+3 | 2E-6 | 6E-9 | - | - |
| 72 | Hafnium-172 | D, see $^{170}$Hf | 1E+3 | 9E+0 | 4E-9 | - | 2E-5 | 2E-4 |
| | | | - | Bone surf (2E+1) | - | 3E-11 | - | - |
| | | W, see $^{170}$Hf | - | 4E+1 | 2E-8 | - | - | - |
| | | | - | Bone surf (6E+1) | - | 8E-11 | - | - |
| 72 | Hafnium-173 | D, see $^{170}$Hf | 5E+3 | 1E+4 | 5E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | W, see $^{170}$Hf | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 72 | Hafnium-175 | D, see $^{170}$Hf | 3E+3 | 9E+2 | 4E-7 | - | 4E-5 | 4E-4 |
| | | | - | Bone surf (1E+3) | - | 1E-9 | - | - |
| | | W, see $^{170}$Hf | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 72 | Hafnium-177m[2] | D, see $^{170}$Hf | 2E+4 | 6E+4 | 2E-5 | 8E-8 | 3E-4 | 3E-3 |
| | | W, see $^{170}$Hf | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 72 | Hafnium-178m | D, see $^{170}$Hf | 3E+2 | 1E+0 | 5E-10 | - | 3E-6 | 3E-5 |
| | | | - | Bone surf (2E+0) | - | 3E-12 | - | - |
| | | W, see $^{170}$Hf | - | 5E+0 | 2E-9 | - | - | - |
| | | | - | Bone surf (9E+0) | - | 1E-11 | - | - |
| 72 | Hafnium-179m | D, see $^{170}$Hf | 1E+3 | 3E+2 | 1E-7 | - | 1E-5 | 1E-4 |
| | | | - | Bone surf (6E+2) | - | 8E-10 | - | - |
| | | W, see $^{170}$Hf | - | 6E+2 | 3E-7 | 8E-10 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 72 | Hafnium-180m | D, see $^{170}$Hf | 7E+3 | 2E+4 | 9E-6 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{170}$Hf | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 72 | Hafnium-181 | D, see $^{170}$Hf | 1E+3 | 2E+2 | 7E-8 | - | 2E-5 | 2E-4 |
| | | | - | Bone surf (4E+2) | - | 6E-10 | - | - |
| | | W, see $^{170}$Hf | - | 4E+2 | 2E-7 | 6E-10 | - | - |
| 72 | Hafnium-182m[2] | D, see $^{170}$Hf | 4E+4 | 9E+4 | 4E-5 | 1E-7 | 5E-4 | 5E-3 |
| | | W, see $^{170}$Hf | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 72 | Hafnium-182 | D, see $^{170}$Hf | 2E+2 | 8E-1 | 3E-10 | - | - | - |
| | | | Bone surf (4E+2) | Bone surf (2E+0) | - | 2E-12 | 5E-6 | 5E-5 |
| | | W, see$^{170}$Hf | - | 3E+0 | 1E-9 | - | - | - |
| | | | - | Bone surf (7E+0) | - | 1E-11 | - | - |
| 72 | Hafnium-183[2] | D, see $^{170}$Hf | 2E+4 | 5E+4 | 2E-5 | 6E-8 | 3E-4 | 3E-3 |
| | | W, see $^{170}$Hf | - | 6E+4 | 2E-5 | 8E-8 | - | - |
| 72 | Hafnium-184 | D, see $^{170}$Hf | 2E+3 | 8E+3 | 3E-6 | 1E-8 | 3E-5 | 3E-4 |
| | | W, see $^{170}$Hf | - | 6E+3 | 3E-6 | 9E-9 | - | - |
| 73 | Tantalum-172[2] | W, all compounds except those given for Y | 4E+4 | 1E+5 | 5E-5 | 2E-7 | 5E-4 | 5E-3 |
| | | Y, elemental Ta, oxides, hydroxides, halides, carbides, nitrates, and nitrides | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 73 | Tantalum-173 | W, see $^{172}$Ta | 7E+3 | 2E+4 | 8E-6 | 3E-8 | 9E-5 | 9E-4 |
| | | Y, see $^{172}$Ta | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| 73 | Tantalum-174[2] | W, see $^{172}$Ta | 3E+4 | 1E+5 | 4E-5 | 1E-7 | 4E-4 | 4E-3 |
| | | Y, see $^{172}$Ta | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 73 | Tantalum-175 | W, see $^{172}$Ta | 6E+3 | 2E+4 | 7E-6 | 2E-8 | 8E-5 | 8E-4 |
| | | Y, see $^{172}$Ta | - | 1E+4 | 6E-6 | 2E-8 | - | - |
| 73 | Tantalum-176 | W, see $^{172}$Ta | 4E+3 | 1E+4 | 5E-6 | 2E-8 | 5E-5 | 5E-4 |
| | | Y, see $^{172}$Ta | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| 73 | Tantalum-177 | W, see $^{172}$Ta | 1E+4 | 2E+4 | 8E-6 | 3E-8 | 2E-4 | 2E-3 |
| | | Y, see $^{172}$Ta | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| 73 | Tantalum-178 | W, see $^{172}$Ta | 2E+4 | 9E+4 | 4E-5 | 1E-7 | 2E-4 | 2E-3 |
| | | Y, see $^{172}$Ta | - | 7E+4 | 3E-5 | 1E-7 | - | - |
| 73 | Tantalum-179 | W, see $^{172}$Ta | 2E+4 | 5E+3 | 2E-6 | 8E-9 | 3E-4 | 3E-3 |
| | | Y, see $^{172}$Ta | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| 73 | Tantalum-180m | W, see $^{172}$Ta | 2E+4 | 7E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | Y, see $^{172}$Ta | - | 6E+4 | 2E-5 | 8E-8 | - | - |
| 73 | Tantalum-180 | W, see $^{172}$Ta | 1E+3 | 4E+2 | 2E-7 | 6E-10 | 2E-5 | 2E-4 |
| | | Y, see $^{172}$Ta | - | 2E+1 | 1E-8 | 3E-11 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 73 | Tantalum-182m[2] | W, see $^{172}$Ta | 2E+5 | 5E+5 | 2E-4 | 8E-7 | - | - |
| | | | St wall (2E+5) | - | - | - | 3E-3 | 3E-2 |
| | | Y, see $^{172}$Ta | - | 4E+5 | 2E-4 | 6E-7 | - | - |
| 73 | Tantalum-182 | W, see $^{172}$Ta | 8E+2 | 3E+2 | 1E-7 | 5E-10 | 1E-5 | 1E-4 |
| | | Y, see $^{172}$Ta | - | 1E+2 | 6E-8 | 2E-10 | - | - |
| 73 | Tantalum-183 | W, see $^{172}$Ta | 9E+2 | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | | LLI wall (1E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{172}$Ta | - | 1E+3 | 4E-7 | 1E-9 | - | - |
| 73 | Tantalum-184 | W, see $^{172}$Ta | 2E+3 | 5E+3 | 2E-6 | 8E-9 | 3E-5 | 3E-4 |
| | | Y, see $^{172}$Ta | - | 5E+3 | 2E-6 | 7E-9 | - | - |
| 73 | Tantalum-185[2] | W, see $^{172}$Ta | 3E+4 | 7E+4 | 3E-5 | 1E-7 | 4E-4 | 4E-3 |
| | | Y, see $^{172}$Ta | - | 6E+4 | 3E-5 | 9E-8 | - | - |
| 73 | Tantalum-186[2] | W, see $^{172}$Ta | 5E+4 | 2E+5 | 1E-4 | 3E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 1E-3 | 1E-2 |
| | | Y, see $^{172}$Ta | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| 74 | Tungsten-176 | D, all compounds | 1E+4 | 5E+4 | 2E-5 | 7E-8 | 1E-4 | 1E-3 |
| 74 | Tungsten-177 | D, all compounds | 2E+4 | 9E+4 | 4E-5 | 1E-7 | 3E-4 | 3E-3 |
| 74 | Tungsten-178 | D, all compounds | 5E+3 | 2E+4 | 8E-6 | 3E-8 | 7E-5 | 7E-4 |
| 74 | Tungsten-179[2] | D, all compounds | 5E+5 | 2E+6 | 7E-4 | 2E-6 | 7E-3 | 7E-2 |
| 74 | Tungsten-181 | D, all compounds | 2E+4 | 3E+4 | 1E-5 | 5E-8 | 2E-4 | 2E-3 |
| 74 | Tungsten-185 | D, all compounds | 2E+3 | 7E+3 | 3E-6 | 9E-9 | - | - |
| | | | LLI wall (3E+3) | - | - | - | 4E-5 | 4E-4 |
| 74 | Tungsten-187 | D, all compounds | 2E+3 | 9E+3 | 4E-6 | 1E-8 | 3E-5 | 3E-4 |
| 74 | Tungsten-188 | D, all compounds | 4E+2 | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | | LLI wall (5E+2) | - | - | - | 7E-6 | 7E-5 |
| 75 | Rhenium-177[2] | D, all compounds except those given for W | 9E+4 | 3E+5 | 1E-4 | 4E-7 | - | - |
| | | | St wall (1E+5) | - | - | - | 2E-3 | 2E-2 |
| | | W, oxides, hydroxides, and nitrates | - | 4E+5 | 1E-4 | 5E-7 | - | - |
| 75 | Rhenium-178[2] | D, see $^{177}$Re | 7E+4 | 3E+5 | 1E-4 | 4E-7 | - | - |
| | | | St wall (1E+5) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{177}$Re | - | 3E+5 | 1E-4 | 4E-7 | - | - |
| 75 | Rhenium-181 | D, see $^{177}$Re | 5E+3 | 9E+3 | 4E-6 | 1E-8 | 7E-5 | 7E-4 |
| | | W, see $^{177}$Re | - | 9E+3 | 4E-6 | 1E-8 | - | - |
| 75 | Rhenium-182 | D, see $^{177}$Re | 7E+3 | 1E+4 | 5E-6 | 2E-8 | 9E-5 | 9E-4 |
| | (12.7 h) | W, see $^{177}$Re | - | 2E+4 | 6E-6 | 2E-8 | - | - |
| 75 | Rhenium-182 | D, see $^{177}$Re | 1E+3 | 2E+3 | 1E-6 | 3E-9 | 2E-5 | 2E-4 |
| | (64.0 h) | W, see $^{177}$Re | - | 2E+3 | 9E-7 | 3E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 75 | Rhenium-184m | D, see $^{177}$Re | 2E+3 | 3E+3 | 1E-6 | 4E-9 | 3E-5 | 3E-4 |
| | | W, see $^{177}$Re | - | 4E+2 | 2E-7 | 6E-10 | - | - |
| 75 | Rhenium-184 | D, see $^{177}$Re | 2E+3 | 4E+3 | 1E-6 | 5E-9 | 3E-5 | 3E-4 |
| | | W, see $^{177}$Re | - | 1E+3 | 6E-7 | 2E-9 | - | - |
| 75 | Rhenium-186m | D, see $^{177}$Re | 1E+3 St wall (2E+3) | 2E+3 St wall (2E+3) | 7E-7 - | - 3E-9 | - 2E-5 | - 2E-4 |
| | | W, see $^{177}$Re | - | 2E+2 | 6E-8 | 2E-10 | - | - |
| 75 | Rhenium-186 | D, see $^{177}$Re | 2E+3 | 3E+3 | 1E-6 | 4E-9 | 3E-5 | 3E-4 |
| | | W, see $^{177}$Re | - | 2E+3 | 7E-7 | 2E-9 | - | - |
| 75 | Rhenium-187 | D, see $^{177}$Re | 6E+5 St wall - | 8E+5 (9E+5) | 4E-4 - | - 1E-6 | 8E-3 - | 8E-2 - |
| | | W, see $^{177}$Re | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 75 | Rhenium-188m[2] | D, see $^{177}$Re | 8E+4 | 1E+5 | 6E-5 | 2E-7 | 1E-3 | 1E-2 |
| | | W, see $^{177}$Re | - | 1E+5 | 6E-5 | 2E-7 | - | - |
| 75 | Rhenium-188 | D, see $^{177}$Re | 2E+3 | 3E+3 | 1E-6 | 4E-9 | 2E-5 | 2E-4 |
| | | W, see $^{177}$Re | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 75 | Rhenium-189 | D, see $^{177}$Re | 3E+3 | 5E+3 | 2E-6 | 7E-9 | 4E-5 | 4E-4 |
| | | W, see $^{177}$Re | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| 76 | Osmium-180[2] | D, all compounds except those given for W and Y | 1E+5 | 4E+5 | 2E-4 | 5E-7 | 1E-3 | 1E-2 |
| | | W, halides and nitrates | - | 5E+5 | 2E-4 | 7E-7 | - | - |
| | | Y, oxides and hydroxides | - | 5E+5 | 2E-4 | 6E-7 | - | - |
| 76 | Osmium-181[2] | D, see $^{180}$Os | 1E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, see $^{180}$Os | - | 5E+4 | 2E-5 | 6E-8 | - | - |
| | | Y, see $^{180}$Os | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 76 | Osmium-182 | D, see $^{180}$Os | 2E+3 | 6E+3 | 2E-6 | 8E-9 | 3E-5 | 3E-4 |
| | | W, see $^{180}$Os | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | Y, see $^{180}$Os | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| 76 | Osmium-185 | D, see $^{180}$Os | 2E+3 | 5E+2 | 2E-7 | 7E-10 | 3E-5 | 3E-4 |
| | | W, see $^{180}$Os | - | 8E+2 | 3E-7 | 1E-9 | - | - |
| | | Y, see $^{180}$Os | - | 8E+2 | 3E-7 | 1E-9 | - | - |
| 76 | Osmium-189m | D, see $^{180}$Os | 8E+4 | 2E+5 | 1E-4 | 3E-7 | 1E-3 | 1E-2 |
| | | W, see $^{180}$Os | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | Y, see $^{180}$Os | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| 76 | Osmium-191m | D, see $^{180}$Os | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 2E-4 | 2E-3 |
| | | W, see $^{180}$Os | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| | | Y, see $^{180}$Os | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| 76 | Osmium-191 | D, see $^{180}$Os | 2E+3 LLI wall (3E+3) | 2E+3 - | 9E-7 - | 3E-9 - | - 3E-5 | - 3E-4 |
| | | W, see $^{180}$Os | - | 2E+3 | 7E-7 | 2E-9 | - | - |
| | | Y, see $^{180}$Os | - | 1E+3 | 6E-7 | 2E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values: Col. 2 Inhalation ALI (μCi) | Table I Occupational Values: Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II Effluent Concentrations: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 76 | Osmium-193 | D, see $^{180}$Os | 2E+3 | 5E+3 | 2E-6 | 6E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 2E-5 | 2E-4 |
| | | W, see $^{180}$Os | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | Y, see $^{180}$Os | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 76 | Osmium-194 | D, see $^{180}$Os | 4E+2 | 4E+1 | 2E-8 | 6E-11 | - | - |
| | | | LLI wall (6E+2) | - | - | - | 8E-6 | 8E-5 |
| | | W, see $^{180}$Os | - | 6E+1 | 2E-8 | 8E-11 | - | - |
| | | Y, see $^{180}$Os | - | 8E+0 | 3E-9 | 1E-11 | - | - |
| 77 | Iridium-182[2] | D, all compounds except those given for W and Y | 4E+4 | 1E+5 | 6E-5 | 2E-7 | - | - |
| | | | St wall (4E+4) | - | - | - | 6E-4 | 6E-3 |
| | | W, halides, nitrates, and metallic iridium | - | 2E+5 | 6E-5 | 2E-7 | - | - |
| | | Y, oxides and hydroxides | - | 1E+5 | 5E-5 | 2E-7 | - | - |
| 77 | Iridium-184 | D, see $^{182}$Ir | 8E+3 | 2E+4 | 1E-5 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{182}$Ir | - | 3E+4 | 1E-5 | 5E-8 | - | - |
| | | Y, see $^{182}$Ir | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 77 | Iridium-185 | D, see $^{182}$Ir | 5E+3 | 1E+4 | 5E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | W, see$^{182}$Ir | - | 1E+4 | 5E-6 | 2E-8 | - | - |
| | | Y, see $^{182}$Ir | - | 1E+4 | 4E-6 | 1E-8 | - | - |
| 77 | Iridium-186 | D, see $^{182}$Ir | 2E+3 | 8E+3 | 3E-6 | 1E-8 | 3E-5 | 3E-4 |
| | | W, see $^{182}$Ir | - | 6E+3 | 3E-6 | 9E-9 | - | - |
| | | Y, see $^{182}$Ir | - | 6E+3 | 2E-6 | 8E-9 | - | - |
| 77 | Iridium-187 | D, see $^{182}$Ir | 1E+4 | 3E+4 | 1E-5 | 5E-8 | 1E-4 | 1E-3 |
| | | W, see $^{182}$Ir | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| | | Y, see $^{182}$Ir | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 77 | Iridium-188 | D, see $^{182}$Ir | 2E+3 | 5E+3 | 2E-6 | 6E-9 | 3E-5 | 3E-4 |
| | | W, see $^{182}$Ir | - | 4E+3 | 1E-6 | 5E-9 | - | - |
| | | Y, see $^{182}$Ir | - | 3E+3 | 1E-6 | 5E-9 | - | - |
| 77 | Iridium-189 | D, see $^{182}$Ir | 5E+3 | 5E+3 | 2E-6 | 7E-9 | - | - |
| | | | LLI wall (5E+3) | - | - | - | 7E-5 | 7E-4 |
| | | W, see $^{182}$Ir | - | 4E+3 | 2E-6 | 5E-9 | - | - |
| | | Y, see $^{182}$Ir | - | 4E+3 | 1E-6 | 5E-9 | - | - |
| 77 | Iridium- 190m[2] | D, see $^{182}$Ir | 2E+5 | 2E+5 | 8E-5 | 3E-7 | 2E-3 | 2E-2 |
| | | W, see $^{182}$Ir | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | Y, see $^{182}$Ir | - | 2E+5 | 8E-5 | 3E-7 | - | - |
| 77 | Iridium-190 | D, see $^{182}$Ir | 1E+3 | 9E+2 | 4E-7 | 1E-9 | 1E-5 | 1E-4 |
| | | W, see $^{182}$Ir | - | 1E+3 | 4E-7 | 1E-9 | - | - |
| | | Y, see $^{182}$Ir | - | 9E+2 | 4E-7 | 1E-9 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 77 | Iridium-192m | D, see $^{182}$Ir | 3E+3 | 9E+1 | 4E-8 | 1E-10 | 4E-5 | 4E-4 |
| | | W, see $^{182}$Ir | - | 2E+2 | 9E-8 | 3E-10 | - | - |
| | | Y, see $^{182}$Ir | - | 2E+1 | 6E-9 | 2E-11 | - | - |
| 77 | Iridium-192 | D, see $^{182}$Ir | 9E+2 | 3E+2 | 1E-7 | 4E-10 | 1E-5 | 1E-4 |
| | | W, see $^{182}$Ir | - | 4E+2 | 2E-7 | 6E-10 | - | - |
| | | Y, see $^{182}$Ir | - | 2E+2 | 9E-8 | 3E-10 | - | - |
| 77 | Iridium-194m | D, see $^{182}$Ir | 6E+2 | 9E+1 | 4E-8 | 1E-10 | 9E-6 | 9E-5 |
| | | W, see $^{182}$Ir | - | 2E+2 | 7E-8 | 2E-10 | - | - |
| | | Y, see $^{182}$Ir | - | 1E+2 | 4E-8 | 1E-10 | - | - |
| 77 | Iridium-194 | D, see $^{182}$Ir | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 1E-5 | 1E-4 |
| | | W, see $^{182}$Ir | - | 2E+3 | 9E-7 | 3E-9 | - | - |
| | | Y, see $^{182}$Ir | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| 77 | Iridium-195m | D, see $^{182}$Ir | 8E+3 | 2E+4 | 1E-5 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{182}$Ir | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| | | Y, see $^{182}$Ir | - | 2E+4 | 9E-6 | 3E-8 | - | - |
| 77 | Iridium-195 | D, see $^{182}$Ir | 1E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, see $^{182}$Ir | - | 5E+4 | 2E-5 | 7E-8 | - | - |
| | | Y, see $^{182}$Ir | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 78 | Platinum-186 | D, all compounds | 1E+4 | 4E+4 | 2E-5 | 5E-8 | 2E-4 | 2E-3 |
| 78 | Platinum-188 | D, all compounds | 2E+3 | 2E+3 | 7E-7 | 2E-9 | 2E-5 | 2E-4 |
| 78 | Platinum-189 | D, all compounds | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| 78 | Platinum-191 | D, all compounds | 4E+3 | 8E+3 | 4E-6 | 1E-8 | 5E-5 | 5E-4 |
| 78 | Platinum-193m | D, all compounds | 3E+3 | 6E+3 | 3E-6 | 8E-9 | - | - |
| | | | LLI wall (3E+4) | - | - | - | 4E-5 | 4E-4 |
| 78 | Platinum-193 | D, all compounds | 4E+4 | 2E+4 | 1E-5 | 3E-8 | - | - |
| | | | LLI wall (5E+4) | - | - | - | 6E-4 | 6E-3 |
| 78 | Platinum-195m | D, all compounds | 2E+3 | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| 78 | Platinum-197m[2] | D, all compounds | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| 78 | Platinum-197 | D, all compounds | 3E+3 | 1E+4 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| 78 | Platinum-199[2] | D, all compounds | 5E+4 | 1E+5 | 6E-5 | 2E-7 | 7E-4 | 7E-3 |
| 78 | Platinum-200 | D, all compounds | 1E+3 | 3E+3 | 1E-6 | 5E-9 | 2E-5 | 2E-4 |
| 79 | Gold-193 | D, all compounds except those given for W and Y | 9E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| | | W, halides and nitrates | - | 2E+4 | 9E-6 | 3E-8 | - | - |
| | | Y, oxides and hydroxides | - | 2E+4 | 8E-6 | 3E-8 | - | - |
| 79 | Gold-194 | D, see $^{193}$Au | 3E+3 | 8E+3 | 3E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, see $^{193}$Au | - | 5E+3 | 2E-6 | 8E-9 | - | - |
| | | Y, see $^{193}$Au | - | 5E+3 | 2E-6 | 7E-9 | - | - |
| 79 | Gold-195 | D see $^{193}$Au | 5E+3 | 1E+4 | 5E-6 | 2E-8 | 7E-5 | 7E-4 |
| | | W see $^{193}$Au | - | 1E+3 | 6E-7 | 2E-9 | - | - |
| | | Y see $^{193}$Au | - | 4E+2 | 2E-7 | 6E-10 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 79 | Gold-198m | D see $^{193}$Au | 1E+3 | 3E+3 | 1E-6 | 4E-9 | 1E-5 | 1E-4 |
| | | W see $^{193}$Au | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| | | Y see $^{193}$Au | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 79 | Gold-198 | D see $^{193}$Au | 1E+3 | 4E+3 | 2E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | W see $^{193}$Au | - | 2E+3 | 8E-7 | 3E-9 | - | - |
| | | Y see $^{193}$Au | - | 2E+3 | 7E-7 | 2E-9 | - | - |
| 79 | Gold-199 | D see $^{193}$Au | 3E+3 | 9E+3 | 4E-6 | 1E-8 | - | - |
| | | | LLI wall (3E+3) | - | - | - | 4E-5 | 4E-4 |
| | | W, see $^{193}$Au | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | Y, see $^{193}$Au | - | 4E+3 | 2E-6 | 5E-9 | - | - |
| 79 | Gold-200m | D, see $^{193}$Au | 1E+3 | 4E+3 | 1E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | W, see $^{193}$Au | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | Y, see $^{193}$Au | - | 2E+4 | 1E-6 | 3E-9 | - | - |
| 79 | Gold-200[2] | D, see $^{193}$Au | 3E+4 | 6E+4 | 3E-5 | 9E-8 | 4E-4 | 4E-3 |
| | | W, see $^{193}$Au | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| | | Y, see $^{193}$Au | - | 7E+4 | 3E-5 | 1E-7 | - | - |
| 79 | Gold-201[2] | D, see $^{193}$Au | 7E+4 | 2E+5 | 9E-5 | 3E-7 | - | - |
| | | | St wall (9E+4) | - | - | - | 1E-3 | 1E-2 |
| | | W, see $^{193}$Au | - | 2E+5 | 1E-4 | 3E-7 | - | - |
| | | Y, see $^{193}$Au | - | 2E+5 | 9E-5 | 3E-7 | - | - |
| 80 | Mercury-193m | Vapor | - | 8E+3 | 4E-6 | 1E-8 | - | - |
| | | Organic D | 4E+3 | 1E+4 | 5E-6 | 2E-8 | 6E-5 | 6E-4 |
| | | D, sulfates | 3E+3 | 9E+3 | 4E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, oxides, hydroxides, halides, nitrates, and sulfides | - | 8E+3 | 3E-6 | 1E-8 | - | - |
| 80 | Mercury-193 | Vapor | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| | | Organic D | 2E+4 | 6E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | D, see $^{193m}$Hg | 2E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, see $^{193m}$Hg | - | 4E+4 | 2E-5 | 6E-8 | - | - |
| 80 | Mercury-194 | Vapor | - | 3E+1 | 1E-8 | 4E-11 | - | - |
| | | Organic D | 2E+1 | 3E+1 | 1E-8 | 4E-11 | 2E-7 | 2E-6 |
| | | D, see $^{193m}$Hg | 8E+2 | 4E+1 | 2E-8 | 6E-11 | 1E-5 | 1E-4 |
| | | W, see $^{193m}$Hg | - | 1E+2 | 5E-8 | 2E-10 | - | - |
| 80 | Mercury-195m | Vapor | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| | | Organic D | 3E+3 | 6E+3 | 3E-6 | 8E-9 | 4E-5 | 4E-4 |
| | | D, see $^{193m}$Hg | 2E+3 | 5E +3 | 2E-6 | 7E-9 | 3E-5 | 3E-4 |
| | | W, see $^{193m}$Hg | - | 4E+3 | 2E-6 | 5E-9 | - | - |
| 80 | Mercury-195 | Vapor | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| | | Organic D | 2E+4 | 5E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | D, see $^{193m}$Hg | 1E+4 | 4E+ 4 | 1E-5 | 5E-8 | 2E-4 | 2E-3 |
| | | W, see $^{193m}$Hg | - | 3E+4 | 1E-5 | 5E-8 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 80 | Mercury-197m | Vapor | - | 5E+3 | 2E-6 | 7E-9 | - | - |
| | | Organic D | 4E+3 | 9E+3 | 4E-6 | 1E-8 | 5E-5 | 5E-4 |
| | | D, see $^{193m}$Hg | 3E+3 | 7E+3 | 3E-6 | 1E-8 | 4E-5 | 4E-4 |
| | | W, see $^{193m}$Hg | - | 5E+3 | 2E-6 | 7E-9 | - | - |
| 80 | Mercury-197 | Vapor | - | 8E+3 | 4E-6 | 1E-8 | - | - |
| | | Organic D | 7E+3 | 1E+4 | 6E-6 | 2E-8 | 9E-5 | 9E-4 |
| | | D, see $^{193m}$Hg | 6E+3 | 1E+4 | 5E-6 | 2E-8 | 8E-5 | 8E-4 |
| | | W, see $^{193m}$Hg | - | 9E+3 | 4E-6 | 1E-8 | - | - |
| 80 | Mercury-199m[2] | Vapor | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| | | Organic D | 6E+4 | 2E+5 | 7E-5 | 2E-7 | - | - |
| | | | St wall (1E+5) | - | - | - | 1E-3 | 1E-2 |
| | | D, see $^{193m}$Hg | 6E+4 | 1E+5 | 6E-5 | 2E-7 | 8E-4 | 8E-3 |
| | | W, see $^{193m}$Hg | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| 80 | Mercury-203 | Vapor | - | 8E+2 | 4E-7 | 1E-9 | - | - |
| | | Organic D | 5E+2 | 8E+2 | 3E-7 | 1E-9 | 7E-6 | 7E-5 |
| | | D, see $^{193m}$Hg | 2E+3 | 1E+3 | 5E-7 | 2E-9 | 3E-5 | 3E-4 |
| | | W, see $^{193m}$Hg | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 81 | Thallium-194m[2] | D, all compounds | 5E+4 | 2E+5 | 6E-5 | 2E-7 | - | - |
| | | | St wall (7E+4) | - | - | - | 1E-3 | 1E-2 |
| 81 | Thallium-194[2] | D, all compounds | 3E+5 | 6E+5 | 2E-4 | 8E-7 | - | - |
| | | | St wall (3E+5) | - | - | - | 4E-3 | 4E-2 |
| 81 | Thallium-195[2] | D, all compounds | 6E+4 | 1E+5 | 5E-5 | 2E-7 | 9E-4 | 9E-3 |
| 81 | Thallium-197 | D, all compounds | 7E+4 | 1E+5 | 5E-5 | 2E-7 | 1E-3 | 1E-2 |
| 81 | Thallium-198m[2] | D, all compounds | 3E+4 | 5E+4 | 2E-5 | 8E-8 | 4E-4 | 4E-3 |
| 81 | Thallium-198 | D, all compounds | 2E+4 | 3E+4 | 1E-5 | 5E-8 | 3E-4 | 3E-3 |
| 81 | Thallium-199 | D, all compounds | 6E+4 | 8E+4 | 4E-5 | 1E-7 | 9E-4 | 9E-3 |
| 81 | Thallium-200 | D, all compounds | 8E+3 | 1E+4 | 5E-6 | 2E-8 | 1E-4 | 1E-3 |
| 81 | Thallium-201 | D, all compounds | 2E+4 | 2E+4 | 9E-6 | 3E-8 | 2E-4 | 2E-3 |
| 81 | Thallium-202 | D, all compounds | 4E+3 | 5E+3 | 2E-6 | 7E-9 | 5E-5 | 5E-4 |
| 81 | Thallium-204 | D, all compounds | 2E+3 | 2E+3 | 9E-7 | 3E-9 | 2E-5 | 2E-4 |
| 82 | Lead-195m[2] | D, all compounds | 6E+4 | 2E+5 | 8E-5 | 3E-7 | 8E-4 | 8E-3 |
| 82 | Lead-198 | D, all compounds | 3E+4 | 6E+4 | 3E-5 | 9E-8 | 4E-4 | 4E-3 |
| 82 | Lead-199[2] | D, all compounds | 2E+4 | 7E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| 82 | Lead-200 | D, all compounds | 3E+3 | 6E+3 | 3E-6 | 9E-9 | 4E-5 | 4E-4 |
| 82 | Lead-201 | D, all compounds | 7E+3 | 2E+4 | 8E-6 | 3E-8 | 1E-4 | 1E-3 |
| 82 | Lead-202m | D, all compounds | 9E+3 | 3E+4 | 1E-5 | 4E-8 | 1E-4 | 1E-3 |
| 82 | Lead-202 | D, all compounds | 1E+2 | 5E+1 | 2E-8 | 7E-11 | 2E-6 | 2E-5 |
| 82 | Lead-203 | D, all compounds | 5E+3 | 9E+3 | 4E-6 | 1E-8 | 7E-5 | 7E-4 |
| 82 | Lead-205 | D, all compounds | 4E+3 | 1E+3 | 6E-7 | 2E-9 | 5E-5 | 5E-4 |
| 82 | Lead-209 | D, all compounds | 2E+4 | 6E+4 | 2E-5 | 8E-8 | 3E-4 | 3E-3 |
| 82 | Lead-210 | D, all compounds | 6E1 | 2E1 | 1E-10 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (4E-1) | - | 6E-13 | 1E-8 | 1E-7 |
| 82 | Lead-211[2] | D, all compounds | 1E+4 | 6E+2 | 3E-7 | 9E-10 | 2E-4 | 2E+3 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 82 | Lead-212 | D, all compounds | 8E+1 | 3E+1 | 1E-8 | 5E-11 | - | - |
| | | | Bone surf (1E+2) | - | - | - | 2E-6 | 2E-5 |
| 82 | Lead-214[2] | D, all compounds | 9E+3 | 8E+2 | 3E-7 | 1E-9 | 1E-4 | 1E-3 |
| 83 | Bismuth-200[2] | D, nitrates | 3E+4 | 8E+4 | 4E-5 | 1E-7 | 4E-4 | 4E-3 |
| | | W, all other compounds | - | 1E+5 | 4E-5 | 1E-7 | - | - |
| 83 | Bismuth-201[2] | D, see $^{200}$Bi | 1E+4 | 3E+4 | 1E-5 | 4E-8 | 2E-4 | 2E-3 |
| | | W, see $^{200}$Bi | - | 4E+4 | 2E-5 | 5E-8 | - | - |
| 83 | Bismuth-202[2] | D, see $^{200}$Bi | 1E+4 | 4E+4 | 2E-5 | 6E-8 | 2E-4 | 2E-3 |
| | | W, see $^{200}$Bi | - | 8E+4 | 3E-5 | 1E-7 | - | - |
| 83 | Bismuth-203 | D, see $^{200}$Bi | 2E+3 | 7E+3 | 3E-6 | 9E-9 | 3E-5 | 3E-4 |
| | | W, see $^{200}$Bi | - | 6E+3 | 3E-6 | 9E-9 | - | - |
| 83 | Bismuth-205 | D, see $^{200}$Bi | 1E+3 | 3E+3 | 1E-6 | 3E-9 | 2E-5 | 2E-4 |
| | | W, see $^{200}$Bi | - | 1E+3 | 5E-7 | 2E-9 | - | - |
| 83 | Bismuth-206 | D, see $^{200}$Bi | 6E+2 | 1E+3 | 6E-7 | 2E-9 | 9E-6 | 9E-5 |
| | | W, see $^{200}$Bi | - | 9E+2 | 4E-7 | 1E-9 | - | - |
| 83 | Bismuth-207 | D, see $^{200}$Bi | 1E+3 | 2E+3 | 7E-7 | 2E-9 | 1E-5 | 1E-4 |
| | | W, see $^{200}$Bi | - | 4E+2 | 1E-7 | 5E-10 | - | - |
| 83 | Bismuth-210m | D, see $^{200}$Bi | 4E+1 | 5E+0 | 2E-9 | - | - | - |
| | | | Kidneys (6E+1) | Kidneys (6E+0) | - | 9E-12 | 8E-7 | 8E-6 |
| | | W, see $^{200}$Bi | - | 7E-1 | 3E-10 | 9E-13 | | |
| 83 | Bismuth-210 | D, see $^{200}$Bi | 8E+2 | 2E+2 | 1E-7 | - | 1E-5 | 1E-4 |
| | | | - | Kidneys (4E+2) | - | 5E-10 | - | - |
| | | W, see $^{200}$Bi | - | 3E+1 | 1E-8 | 4E-11 | - | - |
| 83 | Bismuth-212[2] | D, see $^{200}$Bi | 5E+3 | 2E+2 | 1E-7 | 3E-10 | 7E-5 | 7E-4 |
| | | W, see $^{200}$Bi | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| 83 | Bismuth-213[2] | D, see $^{200}$Bi | 7E+3 | 3E+2 | 1E-7 | 4E-10 | 1E-4 | 1E-3 |
| | | W, see $^{200}$Bi | - | 4E+2 | 1E-7 | 5E-10 | - | - |
| 83 | Bismuth-214[2] | D, see $^{200}$Bi | 2E+4 | 8E+2 | 3E-7 | 1E-9 | - | - |
| | | | St wall (2E+4) | - | - | - | 3E-4 | 3E-3 |
| | | W, see $^{200}$Bi | - | 9E-2 | 4E-7 | 1E-9 | - | - |
| 84 | Polonium-203[2] | D, all compounds except those given for W | 3E+4 | 6E+4 | 3E-5 | 9E-8 | 3E-4 | 3E-3 |
| | | W, oxides, hydroxides, and nitrates | - | 9E+4 | 4E-5 | 1E-7 | - | - |
| 84 | Polonium-205[2] | D, see $^{203}$Po | 2E+4 | 4E+4 | 2E-5 | 5E-8 | 3E-4 | 3E-3 |
| | | W, see $^{203}$Po | - | 7E+4 | 3E-5 | 1E-7 | - | - |
| 84 | Polonium-207 | D, see $^{203}$Po | 8E+3 | 3E+4 | 1E-5 | 3E-8 | 1E-4 | 1E-3 |
| | | W, see $^{203}$Po | - | 3E+4 | 1E-5 | 4E-8 | - | - |
| 84 | Polonium-210 | D, see $^{203}$Po | 3E+0 | 6E-1 | 3E-10 | 9E-13 | 4E-8 | 4E-7 |
| | | W, see $^{203}$Po | - | 6E-1 | 3E-10 | 9E-13 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 85 | Astatine-207[2] | D, halides | 6E+3 | 3E+3 | 1E-6 | 4E-9 | 8E-5 | 8E-4 |
| | | W | - | 2E+3 | 9E-7 | 3E-9 | - | - |
| 85 | Astatine-211 | D, halides | 1E+2 | 8E+1 | 3E-8 | 1E-10 | 2E-6 | 2E-5 |
| | | W | - | 5E+1 | 2E-8 | 8E-11 | - | - |
| 86 | Radon-220 | With daughters removed | - | 2E+4 | 7E-6 | 2E-8 | - | - |
| | | With daughters present | - | 2E+1 (or 12 working level months) | 9E-9 | 3E-11 (or 1.0 working level) | - | - |
| 86 | Radon-222 | With daughters removed | - | 1E+4 | 4E-6 | 1E-8 | - | - |
| | | With daughters present | - | 1E+2 (or 4 working level months) | 3E-8 | 1E-10 (or 0.33 working level) | - | - |
| 87 | Francium-222[2] | D, all compounds | 2E+3 | 5E+2 | 2E-7 | 6E-10 | 3E-5 | 3E-4 |
| 87 | Francium-223[2] | D, all compounds | 6E+2 | 8E+2 | 3E-7 | 1E-9 | 8E-6 | 8E-5 |
| 88 | Radium-223 | W, all compounds | 5E+0 Bone surf (9E+0) | 7E-1 - | 3E-10 - | 9E-13 - | - 1E-7 | - 1E-6 |
| 88 | Radium-224 | W, all compounds | 8E+0 Bone surf (2E+1) | 2E+0 - | 7E-10 - | 2E-12 - | - 2E-7 | - 2E-6 |
| 88 | Radium-225 | W, all compounds | 8E+0 Bone surf (2E+1) | 7E-1 - | 3E-10 - | 9E-13 - | - 2E-7 | - 2E-6 |
| 88 | Radium-226 | W, all compounds | 2E+0 Bone surf (5E+0) | 6E-1 - | 3E-10 - | 9E-13 - | - 6E-8 | - 6E-7 |
| 88 | Radium-227[2] | W, all compounds | 2E+4 Bone surf (2E+4) | 1E+4 Bone surf (2E+4) | 6E-6 - | - 3E-8 | - 3E-4 | - 3E-3 |
| 88 | Radium-228 | W, all compounds | 2E+0 Bone surf (4E+0) | 1E+0 - | 5E-10 - | 2E-12 - | - 6E-8 | - 6E-7 |
| 89 | Actinium-224 | D, all compounds except those given for W and Y | 2E+3 LLI wall (2E+3) | 3E+1 Bone surf (4E+1) | 1E-8 - | - 5E-11 | - 3E-5 | - 3E-4 |
| | | W, halides and nitrates | - | 5E+1 | 2E-8 | 7E-11 | - | - |
| | | Y, oxides and hydroxides | - | 5E+1 | 2E-8 | 6E-11 | - | - |
| 89 | Actinium-225 | | | | | | | |
| | | D, see $^{224}$Ac | 5E+1 LLI wall (5E+1) | 3E-1 Bone surf (5E-1) | 1E-10 - | - 7E-13 | - 7E-7 | - 7E-6 |
| | | W, see $^{224}$Ac | - | 6E-1 | 3E-10 | 9E-13 | - | - |
| | | Y, see $^{224}$Ac | - | 6E-1 | 3E-10 | 9E-13 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 89 | Actinium-226 | D, see $^{224}$Ac | 1E+2 | 3E+0 | 1E-9 | - | - | - |
| | | | LLI wall (1E+2) | Bone surf (4E+0) | - | 5E-12 | 2E-6 | 2E-5 |
| | | W, see $^{224}$Ac | - | 5E+0 | 2E-9 | 7E-12 | - | - |
| | | Y, see $^{224}$Ac | - | 5E+0 | 2E-9 | 6E-12 | - | - |
| 89 | Actinium-227 | D, see $^{224}$Ac | 2E-1 | 4E-4 | 2E-13 | - | - | - |
| | | | Bone surf (4E-1) | Bone surf (8E-4) | - | 1E-15 | 5E-9 | 5E-8 |
| | | W, see $^{224}$Ac | - | 2E-3 | 7E-13 | - | - | - |
| | | | - | Bone surf (3E-3) | - | 4E-15 | - | - |
| | | Y, see $^{224}$Ac | - | 4E-3 | 2E-12 | 6E-15 | - | - |
| 89 | Actinium-228 | D, see $^{224}$Ac | 2E+3 | 9E+0 | 4E-9 | - | 3E-5 | 3E-4 |
| | | | - | Bone surf (2E+1) | - | 2E-11 | - | - |
| | | W see $^{224}$Ac | - | 4E+1 | 2E-8 | - | - | - |
| | | | - | Bone surf (6E+1) | - | 8E-11 | - | - |
| | | Y see $^{224}$Ac | - | 4E+1 | 2E-8 | 6E-11 | - | - |
| 90 | Thorium-226[2] | W, all compounds except those given for Y | 5E+3 | 2E+2 | 6E-8 | 2E-10 | - | - |
| | | | St wall (5E+3) | - | - | - | 7E-5 | 7E-4 |
| | | Y, oxides and hydroxides | - | 1E+2 | 6E-8 | 2E-10 | - | - |
| 90 | Thorium-227 | W, see $^{226}$Th | 1E+2 | 3E-1 | 1E-10 | 5E-13 | 2E-6 | 2E-5 |
| | | Y, see $^{226}$Th | - | 3E-1 | 1E-10 | 5E-13 | - | - |
| 90 | Thorium-228 | W, see $^{226}$Th | 6E+0 | 1E-2 | 4E-12 | - | - | - |
| | | | Bone surf (1E+1) | Bone surf (2E-2) | - | 3E-14 | 2E-7 | 2E-6 |
| | | Y, see $^{226}$Th | - | 2E-2 | 7E-12 | 2E-14 | - | - |
| 90 | Thorium-229 | W, see $^{226}$Th | 6E-1 | 9E-4 | 4E-13 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (2E-3) | - | 3E-15 | 2E-8 | 2E-7 |
| | | Y, see $^{226}$Th | - | 2E-3 | 1E-12 | - | - | - |
| | | | - | Bone surf (3E-3) | - | 4E-15- | - | |
| 90 | Thorium-230 | W, see $^{226}$Th | 4E+0 | 6E-3 | 3E-12 | - | - | - |
| | | | Bone surf (9E+0) | Bone surf (2E-2) | - | 2E-14 | 1E-7 | 1E-6 |
| | | Y, see $^{226}$Th | - | 2E-2 | 6E-12 | - | - | - |
| | | | - | Bone surf (2E-2) | - | 3E-14- | - | |
| 90 | Thorium-231 | W, see $^{228}$Th | 4E+3 | 6E+3 | 3E-6 | 9E-9 | 5E-5 | 5E-4 |
| | | Y, see $^{228}$Th | - | 6E+3 | 3E-6 | 9E-9- | - | |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I: Col. 2 Inhalation ALI (μCi) | Table I: Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 90 | Thorium-232 | W, see $^{228}$Th | 7E-1 | 1E-3 | 5E-13 | - | - | - |
| | | | Bone surf (2E+0) | Bone surf (3E-3) | - | 4E-15 | 3E-8 | 3E-7 |
| | | Y, see $^{228}$Th | - | 3E-3 | 1E-12 | - | - | - |
| | | | | Bone surf (4E-3) | - | 6E-15 | - | - |
| 90 | Thorium-234 | W, see $^{228}$Th | 3E+2 | 2E+2 | 8E-8 | 3E-10 | - | - |
| | | | LLI wall (4E+2) | - | - | - | 5E-6 | 5E-5 |
| | | Y, see $^{228}$Th | - | 2E+2 | 6E-8 | 2E-10 | - | - |
| 91 | Protactinium-227[2] | W, all compounds except those given for Y | 4E+3 | 1E+2 | 5E-8 | 2E-10 | 5E-5 | 5E-4 |
| | | Y, oxides and hydroxides | - | 1E+2 | 4E-8 | 1E-10 | - | - |
| 91 | Protactinium-228 | W, see $^{227}$Pa | 1E+3 | 1E+1 | 5E-9 | - | 2E-5 | 2E-4 |
| | | | - | Bone surf (2E+1) | - | 3E-11 | - | - |
| | | Y, see $^{227}$Pa | - | 1E+1 | 5E-9 | 2E-11 | - | - |
| 91 | Protactinium-230 | W, see $^{227}$Pa | 6E+2 | 5E+0 | 2E-9 | 7E-12 | - | - |
| | | | Bone surf (9E+2) | - | - | - | 1E-5 | 1E-4 |
| | | Y, see $^{227}$Pa | - | 4E+0 | 1E-9 | 5E-12 | - | - |
| 91 | Protactinium-231 | W, see $^{22}$7Pa | 2E-1 | 2E-3 | 6E-13 | - | - | - |
| | | | Bone surf (5E-1) | Bone surf (4E-3) | - | 6E-15 | 6E-9 | 6E-8 |
| | | Y, see $^{227}$Pa | - | 4E-3 | 2E-12 | - | - | - |
| | | | | Bone surf (6E-3) | - | 8E-15 | - | - |
| 91 | Protactinium-232 | W, see $^{227}$Pa | 1E+3 | 2E+1 | 9E-9 | - | 2E-5 | 2E-4 |
| | | | - | Bone surf (6E+1) | - | 8E-11 | - | - |
| | | Y, see $^{227}$Pa | - | 6E+1 | 2E-8 | - | - | - |
| | | | - | Bone surf (7E+1) | - | 1E-10 | - | - |
| 91 | Protactinium-233 | W, see $^{227}$Pa | 1E+3 | 7E+2 | 3E-7 | 1E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 2E-5 | 2E-4 |
| | | Y, see $^{227}$Pa | - | 6E+2 | 2E-7 | 8E-10 | - | - |
| 91 | Protactinium-234 | W, see $^{227}$Pa | 2E+3 | 8E+3 | 3E-6 | 1E-8 | 3E-5 | 3E-4 |
| | | Y, see $^{227}$Pa | - | 7E+3 | 3E-6 | 9E-9 | - | - |
| 92 | Uranium-230 | D, UF, UOF, UO(NO) | 4E+0 | 4E-1 | 2E-10 | - | - | - |
| | | | Bone surf (6E+0) | Bone surf (6E-1) | - | 8E-13 | 8E-8 | 8E-7 |
| | | W, UO, UF, UCl | - | 4E-1 | 1E-10 | 5E-13 | - | - |
| | | Y, UO, UO | - | 3E-1 | 1E-10 | 4E-13 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 92 | Uranium-231 | D, see $^{230}$U | 5E+3 | 8E+3 | 3E-6 | 1E-8 | - | - |
| | | | LLI wall (4E+3) | - | - | - | 6E-5 | 6E-4 |
| | | W, see $^{230}$U | - | 6E+3 | 2E-6 | 8E-9 | - | - |
| | | Y, see $^{230}$U | - | 5E+3 | 2E-6 | 6E-9 | - | - |
| 92 | Uranium-232 | D, see $^{230}$U | 2E+0 | 2E-1 | 9E-11 | - | - | - |
| | | | Bone surf (4E+0) | Bone surf (4E-1) | - | 6E-13 | 6E-8 | 6E-7 |
| | | W, see $^{230}$U | - | 4E-1 | 2E-10 | 5E-13 | - | - |
| | | Y, see $^{230}$U | - | 8E-3 | 3E-12 | 1E-14 | - | - |
| 92 | Uranium-233 | D, see $^{230}$U | 1E+1 | 1E+0 | 5E-10 | - | - | |
| | | | Bone surf (2E+1) | Bone surf (2E+0) | - | 3E-12 | 3E-7 | 3E-6 |
| | | W, see $^{230}$U | - | 7E-1 | 3E-10 | 1E-12 | - | - |
| | | Y, see $^{230}$U | - | 4E-2 | 2E-11 | 5E-14 | - | - |
| 92 | Uranium-234[3] | D, see $^{230}$U | 1E+1 | 1E+0 | 5E-10 | - | - | - |
| | | | Bone surf (2E+1) | Bone surf (2E+0) | - | 3E-12 | 3E-7 | 3E-6 |
| | | W, see $^{230}$U | - | 7E-1 | 3E-10 | 1E-12 | - | - |
| | | Y, see $^{230}$U | - | 4E-2 | 2E-11 | 5E-14 | - | - |
| 92 | Uranium-235[3] | D, see $^{230}$U | 1E+1 | 1E+0 | 6E-10 | - | - | - |
| | | | Bone surf (2E+1) | Bone surf (2E+0) | - | 3E-12 | 3E-7 | 3E-6 |
| | | W, see $^{230}$U | - | 8E-1 | 3E-10 | 1E-12 | - | - |
| | | Y, see $^{230}$U | - | 4E-2 | 2E-11 | 6E-14 | - | - |
| 92 | Uranium-236 | D, see $^{230}$U | 1E+1 | 1E+0 | 5E-10 | - | - | - |
| | | | Bone surf (2E+1) | Bone surf (2E+0) | - | 3E-12 | 3E-7 | 3E-6 |
| | | W, see $^{230}$U | - | 8E-1 | 3E-10 | 1E-12 | - | - |
| | | Y, see $^{230}$U | - | 4E-2 | 2E-11 | 6E-14 | - | - |
| 92 | Uranium-237 | D, see $^{230}$U | 2E+3 | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | | LLI wall (2E+3) | - | - | - | 3E-5 | 3E-4 |
| | | W, see $^{230}$U | - | 2E+3 | 7E-7 | 2E-9 | - | - |
| | | Y, see $^{230}$U | - | 2E+3 | 6E-7 | 2E-9 | - | - |
| 92 | Uranium-238[3] | D, see $^{230}$U | 1E+1 | 1E+0 | 6E-10 | - | - | - |
| | | | Bone surf (2E+1) | Bone surf (2E+0) | - | 3E-12 | 3E-7 | 3E-6 |
| | | W, see $^{230}$U | - | 8E-1 | 3E-10 | 1E-12 | - | - |
| | | Y, see $^{230}$U | - | 4E-2 | 2E-11 | 6E-14 | - | - |
| 92 | Uranium-239[2] | D, see $^{230}$U | 7E+4 | 2E+5 | 8E-5 | 3E-7 | 9E-4 | 9E-3 |
| | | W, see $^{230}$U | - | 2E+5 | 7E-5 | 2E-7 | - | - |
| | | Y, see $^{230}$U | - | 2E+5 | 6E-5 | 2E-7 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 92 | Uranium-240 | D, see $^{230}$U | 1E+3 | 4E+3 | 2E-6 | 5E-9 | 2E-5 | 2E-4 |
| | | W, see $^{230}$U | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| | | Y, see $^{230}$U | - | 2E+3 | 1E-6 | 3E-9 | - | - |
| 92 | Uranium-natural[3] | D, see $^{230}$U | 1E+1 Bone surf (2E+1) | 1E+0 Bone surf (2E+0) | 5E-10 - | - 3E-12 | - 3E-7 | - 3E-6 |
| | | W, see $^{230}$U | - | 8E-1 | 3E-10 | 9E-13 | - | - |
| | | Y, see $^{230}$U | - | 5E-2 | 2E-11 | 9E-24 | - | - |
| 93 | Neptunium-232[2] | W, all compounds | 1E+5 - | 2E+3 Bone surf (5E+2) | 7E-7 - | - 6E-9 | 2E-3 - | 2E-2 - |
| 93 | Neptunium-233[2] | W, all compounds | 8E+5 | 3E+6 | 1E-3 | 4E-6 | 1E-2 | 1E-1 |
| 93 | Neptunium-234 | W, all compounds | 2E+3 | 3E+3 | 1E-6 | 4E-9 | 3E-5 | 3E-4 |
| 93 | Neptunium-235 | W, all compounds | 2E+4 LLI wall (2E+4) | 8E+2 Bone surf (1E+3) | 3E-7 - | - 2E-9 | - 3E-4 | - 3E-3 |
| 93 | Neptunium-236 (1.15E+5 y) | W, all compounds | 3E+0 Bone surf (6E+0) | 2E-2 Bone surf (5E-2) | 9E-12 - | - 8E-14 | - 9E-8 | - 9E-7 |
| 93 | Neptunium-236 (22.5 h) | W, all compounds | 3E+3 Bone surf (4E+3) | 3E+1 Bone surf (7E+1) | 1E-8 - | - 1E-10 | - 5E-5 | - 5E-4 |
| 93 | Neptunium-237 | W, all compounds | 5E-1 Bone surf (1E+0) | 4E-3 Bone surf (1E-2) | 2E-12 - | - 1E-14 | - 2E-8 | - 2E-7 |
| 93 | Neptunium-238 | W, all compounds | 1E+3 - | 6E+1 Bone surf (2E+2) | 3E-8 - | - 2E-10 | 2E-5 - | 2E-4 - |
| 93 | Neptunium-239 | W, all compounds | 2E+3 LLI wall (2E+3) | 2E+3 - | 9E-7 - | 3E-9 - | - 2E-5 | - 2E-4 |
| 93 | Neptunium-240[2] | W, all compounds | 2E+4 | 8E+4 | 3E-5 | 1E-7 | 3E-4 | 3E-3 |
| 94 | Plutonium-234 | W, all compounds except PuO | 8E+3 | 2E+2 | 9E-8 | 3E-10 | 1E-4 | 1E-3 |
| | | Y, PuO | - | 2E+2 | 8E-8 | 3E-10 | - | - |
| 94 | Plutonium-235[2] | W, see $^{234}$Pu | 9E+5 | 3E+6 | 1E-3 | 4E-6 | 1E-2 | 1E-1 |
| | | Y, see $^{234}$Pu | - | 3E+6 | 1E-3 | 3E-6 | - | - |
| 94 | Plutonium-236 | W, see $^{234}$Pu | 2E+0 Bone surf (4E+0) | 2E-2 Bone surf (4E-2) | 8E-12 - | - 5E-14 | - 6E-8 | - 6E-7 |
| | | Y, see $^{234}$Pu | - | 4E-2 | 2E-11 | 6E-14 | - | - |
| 94 | Plutonium-237 | W, see $^{234}$Pu | 1E+4 | 3E+3 | 1E-6 | 5E-9 | 2E-4 | 2E-3 |
| | | Y, see $^{234}$Pu | - | 3E+3 | 1E-6 | 4E-9 | - | - |
| 94 | Plutonium-238 | W, see $^{234}$Pu | 9E-1 Bone surf (2E+0) | 7E-3 Bone surf (1E-2) | 3E-12 - | - 2E-14 | - 2E-8 | - 2E-7 |
| | | Y, see $^{234}$Pu | - | 2E-2 | 8E-12 | 2E-14 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 94 | Plutonium-239 | W, see $^{234}$Pu | 8E-1 Bone surf (1E+0) | 6E-3 Bone surf (1E-2) | 3E-12 - | - 2E-14 | - 2E-8 | - 2E-7 |
| | | Y, see $^{234}$Pu | - - | 2E-2 Bone surf (2E-2) | 7E-12 - | - 2E-14 | - - | - - |
| 94 | Plutonium-240 | W, see $^{234}$Pu | 8E-1 Bone surf (1E+0) | 6E-3 Bone surf (1E-2) | 3E-12 - | - 2E-14 | - 2E-8 | - 2E-7 |
| | | Y, see $^{234}$Pu | - - | 2E-2 Bone surf (2E-2) | 7E-12 - | - 2E-14 | - - | - - |
| 94 | Plutonium-241 | W, see $^{234}$Pu | 4E+1 Bone surf (7E+1) | 3E-1 Bone surf (6E-1) | 1E-10 - | - 8E-13 | - 1E-6 | - 1E-5 |
| | | Y, see $^{234}$Pu | - - | 8E-1 Bone surf (1E+0) | 3E-10 - | - 1E-12 | - - | - - |
| 94 | Plutonium-242 | W, see $^{234}$Pu | 8E-1 Bone surf (1E+0) | 7E-3 Bone surf (1E-2) | 3E-12 - | - 2E-14 | - 2E-8 | - 2E-7 |
| | | Y, see $^{234}$Pu | - - | 2E-2 Bone surf (2E-2) | 7E-12 - | - 2E-14 | - - | - - |
| 94 | Plutonium-243 | W, see $^{234}$Pu | 2E+4 | 4E+4 | 2E-5 | 5E-8 | 2E-4 | 2E-3 |
| | | Y, see $^{234}$Pu | - | 4E+4 | 2E-5 | 5E-8 | - | - |
| 94 | Plutonium-244 | W, see $^{234}$Pu | 8E-1 Bone surf (2E+0) | 7E-3 Bone surf (1E-2) | 3E-12 - | - 2E-14 | - 2E-8 | - 2E-7 |
| | | Y, see $^{234}$Pu | - - | 2E-2 Bone surf (2E-2) | 7E-12 - | - 2E-14 | - - | - - |
| 94 | Plutonium-245 | W, see $^{234}$Pu | 2E+3 | 5E+3 | 2E-6 | 6E-9 | 3E-5 | 3E-4 |
| | | Y, see $^{234}$Pu | - | 4E+3 | 2E-6 | 6E-9 | - | - |
| 94 | Plutonium-246 | W, see $^{234}$Pu | 4E+2 LLI wall (4E+2) | 3E+2 - | 1E-7 - | 4E-10 - | - 6E-6 | - 6E-5 |
| | | Y, see $^{234}$Pu | - | 3E+2 | 1E-7 | 4E-10 | - | - |
| 95 | Americium-237[2] | W, all compounds | 8E+4 | 3E+5 | 1E-4 | 4E-7 | 1E-3 | 1E-2 |
| 95 | Americium-238[2] | W, all compounds | 4E+4 - | 3E+3 Bone surf (6E+3) | 1E-6 - | - 9E-9 | 5E-4 - | 5E-3 - |
| 95 | Americium-239 | W, all compounds | 5E+3 | 1E+4 | 5E-6 | 2E-8 | 7E-5 | 7E-4 |
| 95 | Americium-240 | W, all compounds | 2E+3 | 3E+3 | 1E-6 | 4E-9 | 3E-5 | 3E-4 |
| 95 | Americium-241 | W, all compounds | 8E-1 Bone surf (1E+0) | 6E-3 Bone surf (1E-2) | 3E-12 - | - 2E-14 | - 2E-8 | - 2E-7 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 95 | Americium-242m | W, all compounds | 8E-1 | 6E-3 | 3E-12 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (1E-2) | - | 2E-14 | 2E-8 | 2E-7 |
| 95 | Americium-242 | W, all compounds | 4E+3 | 8E+1 | 4E-8 | - | 5E-5 | 5E-4 |
| | | | - | Bone surf (9E+1) | - | 1E-10 | - | - |
| 95 | Americium-243 | W, all compounds | 8E-1 | 6E-3 | 3E-12 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (1E-2) | - | 2E-14 | 2E-8 | 2E-7 |
| 95 | Americium-244m[2] | W, all compounds | 6E+4 | 4E+3 | 2E-6 | - | - | - |
| | | | St wall (8E+4) | Bone surf (7E+3) | - | 1E-8 | 1E-3 | 1E-2 |
| 95 | Americium-244 | W, all compounds | 3E+3 | 2E+2 | 8E-8 | - | 4E-5 | 4E-4 |
| | | | - | Bone surf (3E+2) | - | 4E-10 | - | - |
| 95 | Americium-245 | W, all compounds | 3E+4 | 8E+4 | 3E-5 | 1E-7 | 4E-4 | 4E-3 |
| 95 | Americium-246m[2] | W, all compounds | 5E+4 | 2E+5 | 8E-5 | 3E-7 | - | - |
| | | | St wall (6E+4) | - | - | - | 8E-4 | 8E-3 |
| 95 | Americium-246[2] | W, all compounds | 3E+4 | 1E+5 | 4E-5 | 1E-7 | 4E-4 | 4E-3 |
| 96 | Curium-238 | W, all compounds | 2E+4 | 1E+3 | 5E-7 | 2E-9 | 2E-4 | 2E-3 |
| 96 | Curium-240 | W, all compounds | 6E+1 | 6E-1 | 2E-10 | - | - | - |
| | | | Bone surf (8E+1) | Bone surf (6E-1) | - | 9E-13 | 1E-6 | 1E-5 |
| 96 | Curium-241 | W, all compounds | 1E+3 | 3E+1 | 1E-8 | - | 2E-5 | 2E-4 |
| | | | - | Bone surf (4E+1) | - | 5E-11 | - | - |
| 96 | Curium-242 | W, all compounds | 3E+1 | 3E-1 | 1E-10 | - | - | - |
| | | | Bone surf (5E+1) | Bone surf (3E-1) | - | 4E-13 | 7E-7 | 7E-6 |
| 96 | Curium-243 | W, all compounds | 1E+0 | 9E-3 | 4E-12 | - | - | - |
| | | | Bone surf (2E+0) | Bone surf (2E-2) | - | 2E-14 | 3E-8 | 3E-7 |
| 96 | Curium-244 | W, all compounds | 1E+0 | 1E-2 | 5E-12 | - | - | - |
| | | | Bone surf (3E+0) | Bone surf (2E-2) | - | 3E-14 | 3E-8 | 3E-7 |
| 96 | Curium-245 | W, all compounds | 7E-1 | 6E-3 | 3E-12 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (1E-2) | - | 2E-14 | 2E-8 | 2E-7 |
| 96 | Curium-246 | W, all compounds | 7E-1 | 6E-3 | 3E-12 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (1E-2) | - | 2E-14 | 2E-8 | 2E-7 |
| 96 | Curium-247 | W, all compounds | 8E-1 | 6E-3 | 3E-12 | - | - | - |
| | | | Bone surf (1E+0) | Bone surf (1E-2) | - | 2E-14 | 2E-8 | 2E-7 |
| 96 | Curium-248 | W, all compounds | 2E-1 | 2E-3 | 7E-13 | - | - | - |
| | | | Bone surf (4E-1) | Bone surf (3E-3) | - | 4E-15 | 5E-9 | 5E-8 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 96 | Curium-249[2] | W, all compounds | 5E+4 | 2E+4 | 7E-6 | - | 7E-4 | 7E-3 |
| | | | | Bone surf | | | | |
| | | | - | (3E+4) | - | 4E-8 | - | - |
| 96 | Curium-250 | W, all compounds | 4E-2 | 3E-4 | 1E-13 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (6E-2) | (5E-4) | - | 8E-16 | 9E-10 | 9E-9 |
| 97 | Berkelium-245 | W, all compounds | 2E+3 | 1E+3 | 5E-7 | 2E-9 | 3E-5 | 3E-4 |
| 97 | Berkelium-246 | W, all compounds | 3E+3 | 3E+3 | 1E-6 | 4E-9 | 4E-5 | 4E-4 |
| 97 | Berkelium-247 | W, all compounds | 5E-1 | 4E-3 | 2E-12 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (1E+0) | (9E-3) | - | 1E-14 | 2E-8 | 2E-7 |
| 97 | Berkelium-249 | W, all compounds | 2E+2 | 2E+0 | 7E-10 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (5E+2) | (4E+0) | - | 5E-12 | 6E-6 | 6E-5 |
| 97 | Berkelium-250 | W, all compounds | 9E+3 | 3E+2 | 1E-7 | - | 1E-4 | 1E-3 |
| | | | | Bone surf | | | | |
| | | | - | (7E+2) | - | 1E-9 | - | - |
| 98 | Californium-244[2] | W, all compounds except those given for Y | 3E+4 | 6E+2 | 2E-7 | 8E-10 | - | - |
| | | | St wall | | | | | |
| | | | (3E+4) | - | - | - | 4E-4 | 4E-3 |
| | | Y, oxides and hydroxides | - | 6E+2 | 2E-7 | 8E-10 | - | - |
| 98 | Californium-246 | W, see $^{244}$Cf | 4E+2 | 9E+0 | 4E-9 | 1E-11 | 5E-6 | 5E-5 |
| | | Y, see $^{244}$Cf | - | 9E+0 | 4E-9 | 1E-11 | - | - |
| 98 | Californium-248 | W, see $^{244}$Cf | 8E+0 | 6E-2 | 3E-11 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (2E+1) | (1E-1) | - | 2E-13 | 2E-7 | 2E-6 |
| | | Y, see $^{244}$Cf | - | 1E-1 | 4E-11 | 1E-13 | - | - |
| 98 | Californium-249 | W, see $^{244}$Cf | 5E-1 | 4E-3 | 2E-12 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (1E+0) | (9E-3) | - | 1E-14 | 2E-8 | 2E-7 |
| | | Y, see $^{244}$Cf | - | 1E-2 | 4E-12 | - | - | - |
| | | | | Bone surf | | | | |
| | | | - | (1E-2) | - | 2E-14 | - | - |
| 98 | Californium-250 | W, see $^{244}$Cf | 1E+0 | 9E-3 | 4E-12 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (2E+0) | (2E-2) | - | 3E-14 | 3E-8 | 3E-7 |
| | | Y, see $^{244}$Cf | - | 3E-2 | 1E-11 | 4E-14 | - | - |
| 98 | Californium-251 | W, see $^{244}$Cf | 5E-1 | 4E-3 | 2E-12 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (1E+0) | (9E-3) | - | 1E-14 | 2E-8 | 2E-7 |
| | | Y, see $^{244}$Cf | - | 1E-2 | 4E-12 | | - | - |
| | | | | Bone surf | | | | |
| | | | - | (1E-2) | - | 2E-14 | - | - |
| 98 | Californium-252 | W, see $^{244}$Cf | 2E+0 | 2E-2 | 8E-12 | - | - | - |
| | | | Bone surf | Bone surf | | | | |
| | | | (5E+0) | (4E-2) | - | 5E-14 | 7E-8 | 7E-7 |
| | | Y, see $^{244}$Cf | - | 3E-2 | 1E-11 | 5E-14 | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col. 3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| 98 | Californium-253 | W, see $^{244}$Cf | 2E+2 | 2E+0 | 8E-10 | 3E-12 | - | - |
| | | | Bone surf (4E+2) | - | - | - | 5E-6 | 5E-5 |
| | | Y, see $^{244}$Cf | - | 2E+0 | 7E-10 | 2E-12 | - | - |
| 98 | Californium-254 | W, see $^{244}$Cf | 2E+0 | 2E-2 | 9E-12 | 3E-14 | 3E-8 | 3E-7 |
| | | Y, see $^{244}$Cf | - | 2E-2 | 7E-12 | 2E-14 | - | - |
| 99 | Einsteinium-250 | W, all compounds | 4E+4 | 5E+2 | 2E-7 | - | 6E-4 | 6E-3 |
| | | | - | Bone surf (1E+3) | - | 2E-9 | - | - |
| 99 | Einsteinium-251 | W, all compounds | 7E+3 | 9E+2 | 4E-7 | - | 1E-4 | 1E-3 |
| | | | - | Bone surf (1E+3) | - | 2E-9 | - | - |
| 99 | Einsteinium-253 | W, all compounds | 2E+2 | 1E+0 | 6E-10 | 2E-12 | 2E-6 | 2E-5 |
| 99 | Einsteinium-254m | W, all compounds | 3E+2 | 1E+1 | 4E-9 | 1E-11 | - | - |
| | | | LLI wall (3E+2) | - | - | - | 4E-6 | 4E-5 |
| 99 | Einsteinium-254 | W, all compounds | 8E+0 | 7E-2 | 3E-11 | - | - | - |
| | | | Bone surf (2E+1) | Bone surf (1E-1) | - | 2E-13 | 2E-7 | 2E-6 |
| 100 | Fermium-252 | W, all compounds | 5E+2 | 1E+1 | 5E-9 | 2E-11 | 6E-6 | 6E-5 |
| 100 | Fermium-253 | W, all compounds | 1E+3 | 1E+1 | 4E-9 | 1E-11 | 1E-5 | 1E-4 |
| 100 | Fermium-254 | W, all compounds | 3E+3 | 9E+1 | 4E-8 | 1E-10 | 4E-5 | 4E-4 |
| 100 | Fermium-255 | W, all compounds | 5E+2 | 2E+1 | 9E-9 | 3E-11 | 7E-6 | 7E-5 |
| 100 | Fermium-257 | W, all compounds | 2E+1 | 2E-1 | 7E-11 | - | - | - |
| | | | Bone surf (4E+1) | Bone surf (2E-1) | - | 3E-13 | 5E-7 | 5E-6 |
| 101 | Mendelevium-257 | W, all compounds | 7E+3 | 8E+1 | 4E-8 | - | 1E-4 | 1E-3 |
| | | | - | Bone surf (9E+1) | - | 1E-10 | - | - |
| 101 | Mendelevium-258 | W, all compounds | 3E+1 | 2E-1 | 1E-10 | - | - | - |
| | | | Bone surf (5E+1) | Bone surf (3E-1) | - | 5E-13 | 6E-7 | 6E-6 |
| - | Any single radionuclide not listed above with decay mode other than alpha emission or spontaneous fission and with radioactive half-life less than 2 hours | Submersion[1] | - | 2E+2 | 1E-7 | 1E-9 | - | - |
| - | Any single radionuclide not listed above with decay mode other than alpha emission or spontaneous fission and with radioactive half-life greater than 2 hours. | . . . | - | 2E-1 | 1E-10 | 1E-12 | 1E-8 | 1E-7 |

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I: Col. 2 Inhalation ALI (μCi) | Table I: Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| | Any single radionuclide not listed above that decays by alpha emission or spontaneous fission, or any mixture for which either the identity or the concentration of any radionuclide in the mixture is not known. | . . . | - | 4E-4 | 2E-13 | 1E-15 | 2E-9 | 2E-8 |

FOOTNOTES:

[1] "Submersion" means that values given are for submersion in a hemispherical semi-infinite cloud of airborne material.

[2] These radionuclides have radiological half-lives of less than 2 hours. The total effective dose equivalent received during operations with these radionuclides might include a significant contribution from external exposure. The DAC values for all radionuclides, other than those designated Class "Submersion," are based upon the committed effective dose equivalent due to the intake of the radionuclide into the body and do NOT include potentially significant contributions to dose equivalent from external exposures. The licensee may substitute 1E-7 μCi/ml for the listed DAC to account for the submersion dose prospectively but shall use individual monitoring devices or other radiation-measuring instruments that measure external exposure to demonstrate compliance with the limits. (See R12-1-410)

[3] For soluble mixtures of U-238, U-234, and U-235 in air, chemical toxicity may be the limiting factor (see R12-1-408(E)). If the percent by weight (enrichment) of U-235 is not greater than 5, the concentration value for a 40-hour work week is 0.2 milligrams uranium per cubic meter of air average. For any enrichment, the product of the average concentration and time of exposure during a 40-hour work week shall not exceed8E-3 (SA) μCi-hr/ml, where SA is the specific activity of the uranium inhaled. The specific activity for natural uranium is 6.77E-7 curies per gram U. The specific activity for other mixtures of U-238, U-235, and U-234, if not known, shall be:

SA = 3.6E-7 curies/gram U U-depleted

SA = $[0.4 + 0.38 (\text{enrichment}) + 0.0034 (\text{enrichment})^2]$ E-6, enrichment > 0.72

where enrichment is the percentage by weight of U-235, expressed as percent.

NOTE:

1. If the identity of each radionuclide in a mixture is known but the concentration of 1 or more of the radionuclides in the mixture is not known, the DAC for the mixture shall be the most restrictive DAC of any radionuclide in the mixture.
2. If the identity of each radionuclide in the mixture is not known, but it is known that certain radionuclides specified in this Appendix are not present in the mixture, the inhalation ALI, DAC, and effluent and sewage concentrations for the mixture are the lowest values specified in this Appendix for any radionuclide that is not known to be absent from the mixture; or

| Atomic No. | Radionuclide | Class | Table I Occupational Values: Col. 1 Oral Ingestion ALI (μCi) | Table I: Col. 2 Inhalation ALI (μCi) | Table I: Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations: Col. 1 Air (μCi/ml) | Table II: Col. 2 Water (μCi/ml) | Table III Releases to Sewers: Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| | If it is known that Ac-227-D and Cm-250-W are not present | | - | 7E-4 | 3E-13 | - | - | - |
| | If, in addition, it is known that Ac-227-W,Y, Th-229-W,Y, Th-230-W, Th-232-W,Y, Pa-231-W,Y, Np-237-W, Pu-239-W, Pu-240-W, Pu-242-W, Am-241-W, Am-242m-W, Am-243-W, Cm-245-W, Cm-246-W, Cm-247-W, Cm-248-W, Bk-247-W, Cf-249-W, and Cf-251-W are not present | | - | 7E-3 | 3E-12 | - | - | - |

| Atomic No. | Radionuclide | Class | Table I Occupational Values Col. 1 Oral Ingestion ALI (μCi) | Table I Occupational Values Col. 2 Inhalation ALI (μCi) | Table I Occupational Values Col.3 Inhalation DAC (μCi/ml) | Table II Effluent Concentrations Col. 1 Air (μCi/ml) | Table II Effluent Concentrations Col. 2 Water (μCi/ml) | Table III Releases to Sewers Monthly Average Concentration (μCi/ml) |
|---|---|---|---|---|---|---|---|---|
| | | If, in addition, it is known that Sm-146-W, Sm-147-W, Gd-148-D,W, Gd-152-D,W, Th-228-W,Y, Th-230-Y, U-232-Y, U-233-Y, U-234-Y, U-235-Y, U-236-Y, U-238-Y, Np-236-W, Pu-236-W,Y, Pu-238-W,Y, Pu-239-Y, Pu-240-Y, Pu-242-Y, Pu-244-W,Y, Cm-243-W, Cm-244-W, Cf-248-W, Cf-249-Y, Cf-250-W,Y, Cf-251-Y, Cf-252-WY, and Cf-254-W,Y are not present | - | 7E-2 | 3E-11 | - | - | - |
| | | If, in addition, it is known that Pb-210-D, Bi-210m-W, Po-210-D,W, Ra-223-W, Ra-225-W, Ra-226-W, Ac-225-D,W,Y, Th-227-W,Y, U-230-D,W,Y, U-232-D,W, Pu-241-W, Cm-240-W, Cm-242-W, Cf-248-Y, Es-254-W, Fm-257-W, and Md-258-W are not present | - | 7E-1 | 3E-10 | - | - | - |
| | | If, in addition, it is known that Si-32-Y, Ti-44-Y, Fe-60-D, Sr-90-Y, Zr-93-D, Cd-113m-D, Cd-113-D, In-115-D,W, La-138-D, Lu-176-W, Hf-178m-D,W, Hf-182-D,W, Bi-210m-D, Ra-224-W, Ra-228-W, Ac-226-D,W,Y, Pa-230-W,Y, U-233-D,W, U-234-D,W, U-235-D,W, U-236-D,W, U-238-D,W, Pu-241-Y, Bk-249-W, Cf-253-W,Y, and Es-253-W are not present | - | 7E+0 | 3E-9 | - | - | - |
| | | If it is known that Ac-227-D,W,Y, Th-229-W,Y, Th-232-W,Y, Pa-231-W,Y, Cm-248-W, and Cm-250-W are not present | - | - | - | 1E-14 | - | - |
| | | If, in addition, it is known that Sm-146-W, Gd-148-D,W, Gd-152-D, Th-228-W,Y, Th-230-W,Y, U-232-Y, U-233-Y, U-234-Y, U-235-Y, U-236-Y, U-238-Y, U-Nat-Y, Np-236-W, Np-237-W, Pu-236-W,Y, Pu-238-W,Y, Pu-239-W,Y, Pu-240-W,Y, Pu-242-W,Y, Pu-244-W,Y, Am-241-W, Am-242m-W, Am-243-W, Cm-243-W, Cm-244-W, Cm-245-W, Cm-246-W, Cm-247-W, Bk-247-W, Cf-249-W,Y, Cf-250-W,Y, Cf-251-W,Y, Cf-252-W,Y, and Cf-254-W,Y are not present | - | - | - | 1E-13 | - | - |
| | | If, in addition, it is known that Sm-147-W, Gd-152-W, Pb-210-D, Bi-210m-W, Po-210-D,W, Ra-223-W, Ra-225-W, Ra-226-W, Ac-225-D,W,Y, Th-227-W,Y, U-230-D,W,Y, U-232-D,W, U-Nat-W, Pu-241-W, Cm-240-W, Cm-242-W, Cf-248-W,Y, Es-254-W, Fm-257-W, and Md-258-W are not present | - | - | - | - | 1E-12 | - |
| | | If, in addition it is known that Fe-60, Sr-90, Cd-113m, Cd-113, In-115, I-129, Cs-134, Sm-145, Sm-147, Gd-148, Gd-152, Hg-194 (organic), Bi-210m, Ra-223, Ra-224, Ra-225, Ac-225, Th-228, Th-230, U-233, U-234, U-235, U-236, U-238, U-Nat, Cm-242, Cf-248, Es-254, Fm-257, and Md-258 are not present | - | - | - | - | 1E-6 | 1E-5 |

3. If a mixture of radionuclides consists of Uranium and its daughters in ore dust (10 µm AMAD particle distribution assumed) prior to chemical separation of the Uranium from the ore, the following values may be used for the DAC of the mixture: 6E-11 µCi of gross alpha activity from Uranium-238, Uranium-234, Thorium-230, and Radium-226 per milliliter of air; 3E-11 µCi of natural uranium per milliliter of air; or 45 micrograms of natural uranium per cubic meter of air.
4. If the identity and concentration of each radionuclide in a mixture are known, the limiting values should be derived as follows: determine, for each radionuclide in the mixture, the ratio between the concentration present in the mixture and the concentration otherwise established in Appendix B to Article 4 for the specific radionuclide when not in a mixture. The sum of such ratios for all of the radionuclides in the mixture may not exceed "1" (i.e., "unity").
   Example: If radionuclides "A", "B", and "C" are present in concentrations CA, CB, and CC, and if the applicable DACs are $DAC_A$, $DAC_B$, and $DAC_C$' respectively then the concentrations shall be limited so that the following relationship exists:

$$\frac{C_A}{DAC_A} + \frac{C_B}{DAC_B} + \frac{C_C}{DAC_C} \leq 1$$

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**APPENDIX C. QUANTITIES[1] OF LICENSED OR REGISTERED MATERIAL REQUIRING LABELING**

| Radionuclide | Quantity (μCi) | Radionuclide | Quantity (μCi) |
|---|---|---|---|
| Hydrogen-3 | 1,000 | Nickel-56 | 100 |
| Beryllium-7 | 1,000 | Nickel-57 | 100 |
| Beryllium-10 | 1 | Nickel-59 | 100 |
| Carbon-11 | 1,000 | Nickel-63 | 100 |
| Carbon-14 | 1,000 | Nickel-65 | 1,000 |
| Fluorine-18 | 1,000 | Nickel-66 | 10 |
| Sodium-22 | 10 | Copper-60 | 1,000 |
| Sodium-24 | 100 | Copper-61 | 1,000 |
| Magnesium-28 | 100 | Copper-64 | 1,000 |
| Aluminum-26 | 10 | Copper-67 | 1,000 |
| Silicon-31 | 1,000 | Zinc-62 | 100 |
| Silicon-32 | 1 | Zinc-63 | 1,000 |
| Phosphorus-32 | 10 | Zinc-65 | 10 |
| Phosphorus-33 | 100 | Zinc-69m | 100 |
| Sulfur-35 | 100 | Zinc-69 | 1,000 |
| Chlorine-36 | 10 | Zinc-71m | 1,000 |
| Chlorine-38 | 1,000 | Zinc-72 | 100 |
| Chlorine-39 | 1,000 | Gallium-65 | 1,000 |
| Argon-39 | 1,000 | Gallium-66 | 100 |
| Argon-41 | 1,000 | Gallium-67 | 1,000 |
| Potassium-40 | 100 | Gallium-68 | 1,000 |
| Potassium-42 | 1,000 | Gallium-70 | 1,000 |
| Potassium-43 | 1,000 | Gallium-72 | 100 |
| Potassium-44 | 1,000 | Gallium-73 | 1,000 |
| Potassium-45 | 1,000 | Germanium-66 | 1,000 |
| Calcium-41 | 100 | Germanium-67 | 1,000 |
| Calcium-45 | 100 | Germanium-68 | 10 |
| Calcium-47 | 100 | Germanium-69 | 1,000 |
| Scandium-43 | 1,000 | Germanium-71 | 1,000 |
| Scandium-44m | 100 | Germanium-75 | 1,000 |
| Scandium-44 | 100 | Germanium-77 | 1,000 |
| Scandium-46 | 10 | Germanium-78 | 1,000 |
| Scandium-47 | 100 | Arsenic-69 | 1,000 |
| Scandium-48 | 100 | Arsenic-70 | 1,000 |
| Scandium-49 | 1,000 | Arsenic-71 | 100 |
| Titanium-44 | 1 | Arsenic-72 | 100 |
| Titanium-45 | 1,000 | Arsenic-73 | 100 |
| Vanadium-47 | 1,000 | Arsenic-74 | 100 |
| Vanadium-48 | 100 | Arsenic-76 | 100 |
| Vanadium-49 | 1,000 | Arsenic-77 | 100 |
| Chromium-48 | 1,000 | Arsenic-78 | 1,000 |
| Chromium-49 | 1,000 | Selenium-70 | 1,000 |
| Chromium-51 | 1,000 | Selenium-73m | 1,000 |
| Manganese-51 | 1,000 | Selenium-73 | 100 |
| Manganese-52m | 1,000 | Selenium-75 | 100 |
| Manganese-52 | 100 | Selenium-79 | 100 |
| Manganese-53 | 1,000 | Selenium-81m | 1,000 |
| Manganese-54 | 100 | Selenium-81 | 1,000 |
| Manganese-56 | 1,000 | Selenium-83 | 1,000 |
| Iron-52 | 100 | Bromine-74m | 1,000 |
| Iron-55 | 100 | Bromine-74 | 1,000 |
| Iron-59 | 10 | Bromine-75 | 1,000 |
| Iron-60 | 1 | Bromine-76 | 100 |
| Cobalt-55 | 100 | Bromine-77 | 1,000 |
| Cobalt-56 | 10 | Bromine-80m | 1,000 |
| Cobalt-57 | 100 | Bromine-80 | 1,000 |
| Cobalt-58m | 1,000 | Bromine-82 | 100 |
| Cobalt-58 | 100 | Bromine-83 | 1,000 |
| Cobalt-60m | 1,000 | Bromine-84 | 1,000 |
| Cobalt-60 | 1 | Krypton-74 | 1,000 |
| Cobalt-61 | 1,000 | Krypton-76 | 1,000 |
| Cobalt-62m | 1,000 | Krypton-77 | 1,000 |

*To convert μCi to kBq, multiply the μCi value by 37.

| Radionuclide | Quantity (μCi) |
|---|---|
| Krypton-79 | 1,000 |
| Krypton-81 | 1,000 |
| Krypton-83m | 1,000 |
| Krypton-85m | 1,000 |
| Krypton-85 | 1,000 |
| Krypton-87 | 1,000 |
| Krypton-88 | 1,000 |
| Rubidium-79 | 1,000 |
| Rubidium-81m | 1,000 |
| Rubidium-81 | 1,000 |
| Rubidium-82m | 1,000 |
| Rubidium-83 | 100 |
| Rubidium-84 | 100 |
| Rubidium-86 | 100 |
| Rubidium-87 | 100 |
| Rubidium-88 | 1,000 |
| Rubidium-89 | 1,000 |
| Strontium-80 | 100 |
| Strontium-81 | 1,000 |
| Strontium-83 | 100 |
| Strontium-85m | 1,000 |
| Strontium-85 | 100 |
| Strontium-87m | 1,000 |
| Strontium-89 | 10 |
| Strontium-90 | 0.1 |
| Strontium-91 | 100 |
| Strontium-92 | 100 |
| Yttrium-86m | 1,000 |
| Yttrium-86 | 100 |
| Yttrium-87 | 100 |
| Yttrium-88 | 10 |
| Yttrium-90m | 1,000 |
| Yttrium-90 | 10 |
| Yttrium-91m | 1,000 |
| Yttrium-91 | 10 |
| Yttrium-92 | 100 |
| Yttrium-93 | 100 |
| Yttrium-94 | 1,000 |
| Yttrium-95 | 1,000 |
| Zirconium-86 | 100 |
| Zirconium-88 | 10 |
| Zirconium-89 | 100 |
| Zirconium-93 | 1 |
| Zirconium-95 | 10 |
| Zirconium-97 | 100 |
| Niobium-88 | 1,000 |
| Niobium-89m (66 min) | 1,000 |
| Niobium-89 (122 min) | 1,000 |
| Niobium-90 | 100 |
| Niobium-93m | 10 |
| Niobium-94 | 1 |
| Niobium-95m | 100 |
| Niobium-95 | 100 |
| Niobium-96 | 100 |
| Niobium-97 | 1,000 |
| Niobium-98 | 1,000 |
| Molybdenum-90 | 100 |
| Molybdenum-93m | 100 |
| Molybdenum-93 | 10 |
| Molybdenum-99 | 100 |
| Molybdenum-101 | 1,000 |
| Technetium-93m | 1,000 |
| Technetium-93 | 1,000 |
| Technetium-94m | 1,000 |
| Technetium-94 | 1,000 |
| Technetium-96m | 1,000 |
| Technetium-96 | 100 |
| Technetium-97m | 100 |
| Technetium-97 | 1,000 |
| Technetium-98 | 10 |
| Technetium-99m | 1,000 |
| Technetium-99 | 100 |
| Technetium-101 | 1,000 |
| Technetium-104 | 1,000 |
| Ruthenium-94 | 1,000 |
| Ruthenium-97 | 1,000 |
| Ruthenium-103 | 100 |
| Ruthenium-105 | 1,000 |
| Ruthenium-106 | 1 |
| Rhodium-99m | 1,000 |
| Rhodium-99 | 100 |
| Rhodium-100 | 100 |
| Rhodium-101m | 1,000 |
| Rhodium-101 | 10 |
| Rhodium-102m | 10 |
| Rhodium-102 | 10 |
| Rhodium-103m | 1,000 |
| Rhodium-105 | 100 |
| Rhodium-106m | 1,000 |
| Rhodium-107 | 1,000 |
| Palladium-100 | 100 |
| Palladium-101 | 1,000 |
| Palladium-103 | 100 |
| Palladium-107 | 10 |
| Palladium-109 | 100 |
| Silver-102 | 1,000 |
| Silver-103 | 1,000 |
| Silver-104m | 1,000 |
| Silver-104 | 1,000 |
| Silver-105 | 100 |
| Silver-106m | 100 |
| Silver-106 | 1,000 |
| Silver-108m | 1 |
| Silver-110m | 10 |
| Silver-111 | 100 |
| Silver-112 | 100 |
| Silver-115 | 1,000 |
| Cadmium-104 | 1,000 |
| Cadmium-107 | 1,000 |
| Cadmium-109 | 1 |
| Cadmium-113m | 0.1 |
| Cadmium-113 | 100 |
| Cadmium-115m | 10 |
| Cadmium-115 | 100 |
| Cadmium-117m | 1,000 |
| Cadmium-117 | 1,000 |
| Indium-109 | 1,000 |
| Indium-110m (69.1m) | 1,000 |
| Indium-110 (4.9h) | 1,000 |
| Indium-111 | 100 |
| Indium-112 | 1,000 |
| Indium-113m | 1,000 |

*To convert μCi to kBq, multiply the μCi value by 37.

| Radionuclide | Quantity (μCi) |
|---|---|
| Indium-114m | 10 |
| Indium-115m | 1,000 |
| Indium-115 | 100 |
| Indium-116m | 1,000 |
| Indium-117m | 1,000 |
| Indium-117 | 1,000 |
| Indium-119m | 1,000 |
| Tin-110 | 100 |
| Tin-111 | 1,000 |
| Tin-113 | 100 |
| Tin-117m | 100 |
| Tin-119m | 100 |
| Tin-121m | 100 |
| Tin-121 | 1,000 |
| Tin-123m | 1,000 |
| Tin-123 | 10 |
| Tin-125 | 10 |
| Tin-126 | 10 |
| Tin-127 | 1,000 |
| Tin-128 | 1,000 |
| Antimony-115 | 1,000 |
| Antimony-116m | 1,000 |
| Antimony-116 | 1,000 |
| Antimony-117 | 1,000 |
| Antimony-118m | 1,000 |
| Antimony-119 | 1,000 |
| Antimony-120 (16m) | 1,000 |
| Antimony-120 (5.76d) | 100 |
| Antimony-122 | 100 |
| Antimony-124m | 1,000 |
| Antimony-124 | 10 |
| Antimony-125 | 100 |
| Antimony-126m | 1,000 |
| Antimony-126 | 100 |
| Antimony-127 | 100 |
| Antimony-128 (10.4m) | 1,000 |
| Antimony-128 (9.01h) | 100 |
| Antimony-129 | 100 |
| Antimony-130 | 1,000 |
| Antimony-131 | 1,000 |
| Tellurium-116 | 1,000 |
| Tellurium-121m | 10 |
| Tellurium-121 | 100 |
| Tellurium-123m | 10 |
| Tellurium-123 | 100 |
| Tellurium-125m | 10 |
| Tellurium-127m | 10 |
| Tellurium-127 | 1,000 |
| Tellurium-129m | 10 |
| Tellurium-129 | 1,000 |
| Tellurium-131m | 10 |
| Tellurium-131 | 100 |
| Tellurium-132 | 10 |
| Tellurium-133m | 100 |
| Tellurium-133 | 1,000 |
| Tellurium-134 | 1,000 |
| Iodine-120m | 1,000 |
| Iodine-120 | 100 |
| Iodine-121 | 1,000 |
| Iodine-123 | 100 |
| Iodine-124 | 10 |
| Iodine-125 | 1 |
| Iodine-126 | 1 |
| Iodine-128 | 1,000 |
| Iodine-129 | 1 |
| Iodine-130 | 10 |
| Iodine-131 | 1 |
| Iodine-132m | 100 |
| Iodine-132 | 100 |
| Iodine-133 | 10 |
| Iodine-134 | 1,000 |
| Iodine-135 | 100 |
| Xenon-120 | 1,000 |
| Xenon-121 | 1,000 |
| Xenon-122 | 1,000 |
| Xenon-123 | 1,000 |
| Xenon-125 | 1,000 |
| Xenon-127 | 1,000 |
| Xenon-129m | 1,000 |
| Xenon-131m | 1,000 |
| Xenon-133m | 1,000 |
| Xenon-133 | 1,000 |
| Xenon-135m | 1,000 |
| Xenon-135 | 1,000 |
| Xenon-138 | 1,000 |
| Cesium-125 | 1,000 |
| Cesium-127 | 1,000 |
| Cesium-129 | 1,000 |
| Cesium-130 | 1,000 |
| Cesium-131 | 1,000 |
| Cesium-132 | 100 |
| Cesium-134m | 1,000 |
| Cesium-134 | 10 |
| Cesium-135m | 1,000 |
| Cesium-135 | 100 |
| Cesium-136 | 10 |
| Cesium-137 | 10 |
| Cesium-138 | 1,000 |
| Barium-126 | 1,000 |
| Barium-128 | 100 |
| Barium-131m | 1,000 |
| Barium-131 | 100 |
| Barium-133m | 100 |
| Barium-133 | 100 |
| Barium-135m | 100 |
| Barium-139 | 1,000 |
| Barium-140 | 100 |
| Barium-141 | 1,000 |
| Barium-142 | 1,000 |
| Lanthanum-131 | 1,000 |
| Lanthanum-132 | 100 |
| Lanthanum-135 | 1,000 |
| Lanthanum-137 | 10 |
| Lanthanum-138 | 100 |
| Lanthanum-140 | 100 |
| Lanthanum-141 | 100 |
| Lanthanum-142 | 1,000 |
| Lanthanum-143 | 1,000 |
| Cerium-134 | 100 |
| Cerium-135 | 100 |
| Cerium-137m | 100 |
| Cerium-137 | 1,000 |

*To convert μCi to kBq, multiply the μCi value by 37.

| Radionuclide | Quantity (μCi) |
|---|---|
| Cerium-139 | 100 |
| Cerium-141 | 100 |
| Cerium-143 | 100 |
| Cerium-144 | 1 |
| Praseodymium-136 | 1,000 |
| Praseodymium-137 | 1,000 |
| Praseodymium-138m | 1,000 |
| Praseodymium-139 | 1,000 |
| Praseodymium-142m | 1,000 |
| Praseodymium-142 | 100 |
| Praseodymium-143 | 100 |
| Praseodymium-144 | 1,000 |
| Praseodymium-145 | 100 |
| Praseodymium-147 | 1,000 |
| Neodymium-136 | 1,000 |
| Neodymium-138 | 100 |
| Neodymium-139m | 1,000 |
| Neodymium-139 | 1,000 |
| Neodymium-141 | 1,000 |
| Neodymium-147 | 100 |
| Neodymium-149 | 1,000 |
| Neodymium-151 | 1,000 |
| Promethium-141 | 1,000 |
| Promethium-143 | 100 |
| Promethium-144 | 10 |
| Promethium-145 | 10 |
| Promethium-146 | 1 |
| Promethium-147 | 10 |
| Promethium-148m | 10 |
| Promethium-148 | 10 |
| Promethium-149 | 100 |
| Promethium-150 | 1,000 |
| Promethium-151 | 100 |
| Samarium-141m | 1,000 |
| Samarium-141 | 1,000 |
| Samarium-142 | 1,000 |
| Samarium-145 | 100 |
| Samarium-146 | 1 |
| Samarium-147 | 100 |
| Samarium-151 | 10 |
| Samarium-153 | 100 |
| Samarium-155 | 1,000 |
| Samarium-156 | 1,000 |
| Europium-145 | 100 |
| Europium-146 | 100 |
| Europium-147 | 100 |
| Europium-148 | 10 |
| Europium-149 | 100 |
| Europium-150 (12.62h) | 100 |
| Europium-150 (34.2y) | 1 |
| Europium-152m | 100 |
| Europium-152 | 1 |
| Europium-154 | 1 |
| Europium-155 | 10 |
| Europium-156 | 100 |
| Europium-157 | 100 |
| Europium-158 | 1,000 |
| Gadolinium-145 | 1,000 |
| Gadolinium-146 | 10 |
| Gadolinium-147 | 100 |
| Gadolinium-148 | 0.001 |
| Gadolinium-149 | 100 |
| Gadolinium-151 | 10 |
| Gadolinium-152 | 100 |
| Gadolinium-153 | 10 |
| Gadolinium-159 | 100 |
| Terbium-147 | 1,000 |
| Terbium-149 | 100 |
| Terbium-150 | 1,000 |
| Terbium-151 | 100 |
| Terbium-153 | 1,000 |
| Terbium-154 | 100 |
| Terbium-155 | 1,000 |
| Terbium-156m (5.0h) | 1,000 |
| Terbium-156m (24.4h) | 1,000 |
| Terbium-156 | 100 |
| Terbium-157 | 10 |
| Terbium-158 | 1 |
| Terbium-160 | 10 |
| Terbium-161 | 100 |
| Dysprosium-155 | 1,000 |
| Dysprosium-157 | 1,000 |
| Dysprosium-159 | 100 |
| Dysprosium-165 | 1,000 |
| Dysprosium-166 | 100 |
| Holmium-155 | 1,000 |
| Holmium-157 | 1,000 |
| Holmium-159 | 1,000 |
| Holmium-161 | 1,000 |
| Holmium-162m | 1,000 |
| Holmium-162 | 1,000 |
| Holmium-164m | 1,000 |
| Holmium-164 | 1,000 |
| Holmium-166m | 1 |
| Holmium-166 | 100 |
| Holmium-167 | 1,000 |
| Erbium-161 | 1,000 |
| Erbium-165 | 1,000 |
| Erbium-169 | 100 |
| Erbium-171 | 100 |
| Erbium-172 | 100 |
| Thulium-162 | 1,000 |
| Thulium-166 | 100 |
| Thulium-167 | 100 |
| Thulium-170 | 10 |
| Thulium-171 | 10 |
| Thulium-172 | 100 |
| Thulium-173 | 100 |
| Thulium-175 | 1,000 |
| Ytterbium-162 | 1,000 |
| Ytterbium-166 | 100 |
| Ytterbium-167 | 1,000 |
| Ytterbium-169 | 100 |
| Ytterbium-175 | 100 |
| Ytterbium-177 | 1,000 |
| Ytterbium-178 | 1,000 |
| Lutetium-169 | 100 |
| Lutetium-170 | 100 |
| Lutetium-171 | 100 |
| Lutetium-172 | 100 |
| Lutetium-173 | 10 |
| Lutetium-174m | 10 |

*To convert μCi to kBq, multiply the μCi value by 37.

| Radionuclide | Quantity (μCi) |
|---|---|
| Lutetium-174 | 10 |
| Lutetium-176m | 1,000 |
| Lutetium-176 | 100 |
| Lutetium-177m | 10 |
| Lutetium-177 | 100 |
| Lutetium-178m | 1,000 |
| Lutetium-178 | 1,000 |
| Lutetium-179 | 1,000 |
| Hafnium-170 | 100 |
| Hafnium-172 | 1 |
| Hafnium-173 | 1,000 |
| Hafnium-175 | 100 |
| Hafnium-177m | 1,000 |
| Hafnium-178m | 0.1 |
| Hafnium-179m | 10 |
| Hafnium-180m | 1,000 |
| Hafnium-181 | 10 |
| Hafnium-182m | 1,000 |
| Hafnium-182 | 0.1 |
| Hafnium-183 | 1,000 |
| Hafnium-184 | 100 |
| Tantalum-172 | 1,000 |
| Tantalum-173 | 1,000 |
| Tantalum-174 | 1,000 |
| Tantalum-175 | 1,000 |
| Tantalum-176 | 100 |
| Tantalum-177 | 1,000 |
| Tantalum-178 | 1,000 |
| Tantalum-179 | 100 |
| Tantalum-180m | 1,000 |
| Tantalum-180 | 100 |
| Tantalum-182m | 1,000 |
| Tantalum-182 | 10 |
| Tantalum-183 | 100 |
| Tantalum-184 | 100 |
| Tantalum-185 | 1,000 |
| Tantalum-186 | 1,000 |
| Tungsten-176 | 1,000 |
| Tungsten-177 | 1,000 |
| Tungsten-178 | 1,000 |
| Tungsten-179 | 1,000 |
| Tungsten-181 | 1,000 |
| Tungsten-185 | 100 |
| Tungsten-187 | 100 |
| Tungsten-188 | 10 |
| Rhenium-177 | 1,000 |
| Rhenium-178 | 1,000 |
| Rhenium-181 | 1,000 |
| Rhenium-182 (12.7h) | 1,000 |
| Rhenium-182 (64.0h) | 100 |
| Rhenium-184m | 10 |
| Rhenium-184 | 100 |
| Rhenium-186m | 10 |
| Rhenium-186 | 100 |
| Rhenium-187 | 1,000 |
| Rhenium-188m | 1,000 |
| Rhenium-188 | 100 |
| Rhenium-189 | 100 |
| Osmium-180 | 1,000 |
| Osmium-181 | 1,000 |
| Osmium-182 | 100 |
| Osmium-185 | 100 |
| Osmium-189m | 1,000 |
| Osmium-191m | 1,000 |
| Osmium-191 | 100 |
| Osmium-193 | 100 |
| Osmium-194 | 1 |
| Iridium-182 | 1,000 |
| Iridium-184 | 1,000 |
| Iridium-185 | 1,000 |
| Iridium-186 | 100 |
| Iridium-187 | 1,000 |
| Iridium-188 | 100 |
| Iridium-189 | 100 |
| Iridium-190m | 1,000 |
| Iridium-190 | 100 |
| Iridium-192m (1.4m) | 10 |
| Iridium-192 (73.8d) | 1 |
| Iridium-194m | 10 |
| Iridium-194 | 100 |
| Iridium-195m | 1,000 |
| Iridium-195 | 1,000 |
| Platinum-186 | 1,000 |
| Platinum-188 | 100 |
| Platinum-189 | 1,000 |
| Platinum-191 | 100 |
| Platinum-193m | 100 |
| Platinum-193 | 1,000 |
| Platinum-195m | 100 |
| Platinum-197m | 1,000 |
| Platinum-197 | 100 |
| Platinum-199 | 1,000 |
| Platinum-200 | 100 |
| Gold-193 | 1,000 |
| Gold-194 | 100 |
| Gold-195 | 10 |
| Gold-198m | 100 |
| Gold-198 | 100 |
| Gold-199 | 100 |
| Gold-200m | 100 |
| Gold-200 | 1,000 |
| Gold-201 | 1,000 |
| Mercury-193m | 100 |
| Mercury-193 | 1,000 |
| Mercury-194 | 1 |
| Mercury-195m | 100 |
| Mercury-195 | 1,000 |
| Mercury-197m | 100 |
| Mercury-197 | 1,000 |
| Mercury-199m | 1,000 |
| Mercury-203 | 100 |
| Thallium-194m | 1,000 |
| Thallium-194 | 1,000 |
| Thallium-195 | 1,000 |
| Thallium-197 | 1,000 |
| Thallium-198m | 1,000 |
| Thallium-198 | 1,000 |
| Thallium-199 | 1,000 |
| Thallium-201 | 1,000 |
| Thallium-200 | 1,000 |
| Thallium-202 | 100 |
| Thallium-204 | 100 |

*To convert μCi to kBq, multiply the μCi value by 37.

| Radionuclide | Quantity (μCi) |
|---|---|
| Lead-195m | 1,000 |
| Lead-198 | 1,000 |
| Lead-199 | 1,000 |
| Lead-200 | 100 |
| Lead-201 | 1,000 |
| Lead-202m | 1,000 |
| Lead-202 | 10 |
| Lead-203 | 1,000 |
| Lead-205 | 100 |
| Lead-209 | 1,000 |
| Lead-210 | 0.01 |
| Lead-211 | 100 |
| Lead-212 | 1 |
| Lead-214 | 100 |
| Bismuth-200 | 1,000 |
| Bismuth-201 | 1,000 |
| Bismuth-202 | 1,000 |
| Bismuth-203 | 100 |
| Bismuth-205 | 100 |
| Bismuth-206 | 100 |
| Bismuth-207 | 10 |
| Bismuth-210m | 0.1 |
| Bismuth-210 | 1 |
| Bismuth-212 | 10 |
| Bismuth-213 | 10 |
| Bismuth-214 | 100 |
| Polonium-203 | 1,000 |
| Polonium-205 | 1,000 |
| Polonium-207 | 1,000 |
| Polonium-210 | 0.1 |
| Astatine-207 | 100 |
| Astatine-211 | 10 |
| Radon-220 | 1 |
| Radon-222 | 1 |
| Francium-222 | 100 |
| Francium-223 | 100 |
| Radium-223 | 0.1 |
| Radium-224 | 0.1 |
| Radium-225 | 0.1 |
| Radium-226 | 0.1 |
| Radium-227 | 1,000 |
| Radium-228 | 0.1 |
| Actinium-224 | 1 |
| Actinium-225 | 0.01 |
| Actinium-226 | 0.1 |
| Actinium-227 | 0.001 |
| Actinium-228 | 1 |
| Thorium-226 | 10 |
| Thorium-227 | 0.01 |
| Thorium-228 | 0.001 |
| Thorium-229 | 0.001 |
| Thorium-230 | 0.001 |
| Thorium-231 | 100 |
| Thorium-232 | 100 |
| Thorium-234 | 10 |
| Thorium-natural | 100 |
| Protactinium-227 | 10 |
| Protactinium-228 | 1 |
| Protactinium-230 | 0.1 |
| Protactinium-231 | 0.001 |
| Protactinium-232 | 1 |
| Protactinium-233 | 100 |
| Protactinium-234 | 100 |
| Uranium-230 | 0.01 |
| Uranium-231 | 100 |
| Uranium-232 | 0.001 |
| Uranium-233 | 0.001 |
| Uranium-234 | 0.001 |
| Uranium-235 | 0.001 |
| Uranium-236 | 0.001 |
| Uranium-237 | 100 |
| Uranium-238 | 100 |
| Uranium-239 | 1,000 |
| Uranium-240 | 100 |
| Uranium-natural | 100 |
| Neptunium-232 | 100 |
| Neptunium-233 | 1,000 |
| Neptunium-234 | 100 |
| Neptunium-235 | 100 |
| Neptunium-236 (1.15E + 5) | 0.001 |
| Neptunium-236 (22.5h) | 1 |
| Neptunium-237 | 0.001 |
| Neptunium-238 | 10 |
| Neptunium-239 | 100 |
| Neptunium-240 | 1,000 |
| Plutonium-234 | 10 |
| Plutonium-235 | 1,000 |
| Plutonium-236 | 0.001 |
| Plutonium-237 | 100 |
| Plutonium-238 | 0.001 |
| Plutonium-239 | 0.001 |
| Plutonium-240 | 0.001 |
| Plutonium-241 | 0.01 |
| Plutonium-242 | 0.001 |
| Plutonium-243 | 1,000 |
| Plutonium-244 | 0.001 |
| Plutonium-245 | 100 |
| Americium-237 | 1,000 |
| Americium-238 | 100 |
| Americium-239 | 1,000 |
| Americium-240 | 100 |
| Americium-241 | 0.001 |
| Americium-242m | 0.001 |
| Americium-242 | 10 |
| Americium-243 | 0.001 |
| Americium-244m | 100 |
| Americium-244 | 10 |
| Americium-245 | 1,000 |
| Americium-246m | 1,000 |
| Americium-246 | 1,000 |
| Curium-238 | 100 |
| Curium-240 | 0.1 |
| Curium-241 | 1 |
| Curium-242 | 0.01 |
| Curium-243 | 0.001 |
| Curium-244 | 0.001 |
| Curium-245 | 0.001 |
| Curium-246 | 0.001 |
| Curium-247 | 0.001 |
| Curium-248 | 0.001 |
| Curium-249 | 1,000 |
| Berkelium-245 | 100 |
| Berkelium-246 | 100 |
| Berkelium-247 | 0.001 |

*To convert μCi to kBq, multiply the μCi value by 37.

| Radionuclide | Quantity (μCi) |
|---|---|
| Berkelium-249 | 0.1 |
| Berkelium-250 | 10 |
| Californium-244 | 100 |
| Californium-246 | 1 |
| Californium-248 | 0.01 |
| Californium-249 | 0.001 |
| Californium-250 | 0.001 |
| Californium-251 | 0.001 |
| Californium-252 | 0.001 |
| Californium-253 | 0.1 |
| Californium-254 | 0.001 |
| Einsteinium-250 | 100 |
| Einsteinium-251 | 100 |
| Einsteinium-253 | 0.1 |
| Einsteinium-254m | 1 |
| Einsteinium-254 | 0.01 |
| Fermium-252 | 1 |
| Fermium-253 | 1 |
| Fermium-254 | 10 |
| Fermium-255 | 1 |
| Fermium-257 | 0.01 |
| Mendelevium-257 | 10 |
| Mendelevium-258 | 0.01 |
| Any alpha-emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition | 0.001 |
| Any radionuclide other than alpha-emitting radionuclides not listed above, or mixtures of beta emitters of unknown composition | 0.01 |

* To convert μCi to kBq, multiply the μCi value by 37.

NOTE: For purposes of R12-1-428(E), R12-1-432(A), and R12-1-443(A) where there is involved a combination of radionuclides in known amounts, the limit for the combination shall be derived as follows: determine, for each radionuclide in the combination, the ratio between the quantity present in the combination and the limit otherwise established for the specific radionuclide when not in combination. The sum of such ratios for all radionuclides in the combination may not exceed "1" -- that is, unity.

[1] The quantities listed above were derived by taking 1/10 of the most restrictive ALI listed in Table I, Columns 1and 2, of Appendix B to Article 4, rounding to the nearest factor of 10, and constraining the values listed between 37 Bq and 37 MBq (0.001 and 1,000 μCi). Values of 3.7 MBq (100 μCi) have been assigned for radionuclides having a radioactive half-life in excess of E+9 years, except rhenium, 37 MBq (1,000 μCi), to take into account their low specific activity.

**Historical Note**
Adopted effective August 10, 1994 (Supp. 94-3).

**APPENDIX D. CLASSIFICATION AND CHARACTERISTICS OF LOW-LEVEL RADIOACTIVE WASTE**

I. Classification of Radioactive Waste for Land Disposal

a) Considerations. Determination of the classification of radioactive waste involves 2 considerations. First, consideration must be given to the concentration of long-lived radionuclides (and their shorter-lived precursors) whose potential hazard will persist long after such precautions as institutional controls, improved waste form, and deeper disposal have ceased to be effective. These precautions delay the time when long-lived radio nuclides could cause exposures. In addition, the magnitude of the potential dose is limited by the concentration and availability of the radionuclide at the time of exposure. Second, consideration must be given to the concentration of shorter-lived radionuclides for which requirements on institutional controls, waste form, and disposal methods are effective.

b) Classes of waste.

1) Class A waste is waste that is usually segregated from other waste classes at the disposal site. The physical form and characteristics of Class A waste must meet the minimum requirements set forth in Section II(a). If Class A waste also meets the stability requirements set forth in Section II(b), it is not necessary to segregate the waste for disposal.

2) Class B waste is waste that must meet more rigorous requirements on waste form to ensure stability after disposal. The physical form and characteristics of Class B waste must meet both the minimum and stability requirements set forth in Section II.

3) Class C waste is waste that not only must meet more rigorous requirements on waste form to ensure stability but also requires additional measures at the disposal facility to protect against inadvertent intrusion. The physical form and characteristics of Class C waste must meet both the minimum and stability requirements set forth in Section II.

c) Classification determined by long-lived radionuclides. If the radioactive waste contains only radionuclides listed in Table I, classification shall be determined as follows:

1) If the concentration does not exceed 0.1 times the value in Table I, the waste is Class A.

2) If the concentration exceeds 0.1 times the value in Table I but does not exceed the value in Table I, the waste is Class C.

3) If the concentration exceeds the value in Table I, the waste is not generally acceptable for land disposal.

4) For wastes containing mixtures of radionuclides listed in Table I, the total concentration shall be determined by the sum of fractions rule described in Section I(g).

**TABLE 1**
**Concentration**

| Radionuclide | curie/cubic meter[a] | nanocuries/gram[b] |
|---|---|---|
| C-14 | 8 | |
| C-14 in activated metal | 80 | |
| Ni-59 in activated metal | 220 | |
| Nb-94 in activated metal | 0.2 | |
| Tc-99 | 3 | |
| I-129 | 0.08 | |
| Alpha-emitting transuranic radionuclides with half-life greater than 5 years | 100 | |
| Pu-241 | | 3,500 |
| Cm-242 | | 20,000 |
| Ra-226 | | 100 |

[a]To convert the Ci/$m^3$ values to gigabecquerel (GBq) per cubic meter, multiply the Ci/$m^3$ value by 37.

[b]To convert the nCi/g values to becquerel (Bq) per gram, multiply the nCi/g value by 37.

d) Classification determined by short-lived radionuclides. If the waste does not contain any of the radionuclides listed in Table I, classification shall be determined based on the concentrations shown in Table II. However, as specified in Section I(f), if radioactive waste does not contain any nuclides listed in either Table I or II, it is Class A.
   1) If the concentration does not exceed the value in Column 1, the waste is Class A.
   2) If the concentration exceeds the value in Column 1 but does not exceed the value in Column 2, the waste is Class B.
   3) If the concentration exceeds the value in Column 2 but does not exceed the value in Column 3, the waste is Class C.
   4) If the concentration exceeds the value in Column 3, the waste is not generally acceptable for near-surface disposal.
   5) For wastes containing mixtures of the radionuclides listed in Table II, the total concentration shall be determined by the sum of fractions rule described in Section I(g).

**TABLE II**

| Radionuclide | Concentration, curie/cubic meter* | | |
|---|---|---|---|
| | Column 1 | Column 2 | Column 3 |
| Total of all radionuclides with less than 5-year half-life | 700 | * | * |
| H-3 | 40 | * | * |
| Co-60 | 700 | * | * |
| Ni-63 | 3.5 | 70 | 700 |
| Ni-63 in activated metal | 35 | 700 | 7000 |
| Sr-90 | 0.04 | 150 | 7000 |
| Cs-137 | 1 | 44 | 4600 |

*AGENCY NOTE: To convert the Ci/$m^3$ value to gigabecquerel (GBq) per cubic meter, multiply the Ci/$m^3$ value by 37. There are no limits established for these radionuclides in Class B or C wastes. Practical considerations such as the effects of external radiation and internal heat generation on transportation, handling, and disposal will limit the concentrations for these wastes. These wastes shall be Class B unless the concentrations of other radionuclides in Table II determine the waste to be Class C independent of these radionuclides.

e) Classification determined by both long- and short-lived radionuclides. If the radioactive waste contains a mixture of radionuclides, some of which are listed in Table I and some of which are listed in Table II, classification shall be determined as follows:
   1) If the concentration of a radionuclide listed in Table I is less than 0.1 times the value listed in Table I, the class shall be that determined by the concentration of radionuclides listed in Table II.
   2) If the concentration of a radionuclide listed in Table I exceeds 0.1 times the value listed in Table I, but does not exceed the value in Table II, the waste shall be Class C, provided the concentration of radionuclides listed in Table II does not exceed the value shown in Column 3 of Table II.

f) Classification of wastes with radionuclides other than those listed in Tables I and II. If the waste does not contain any radionuclides listed in either Table I or II, it is Class A.

g) The sum of the fractions rule for mixtures of radionuclides. For determining classification for waste that contains a mixture of radionuclides, it is necessary to determine the sum of fractions by dividing each radionuclide's concentration by the appropriate limit and adding the resulting values. The appropriate limits shall all be taken from the same column of the same table. The sum of the fractions for the column shall be less than 1.0 if the waste class is to be determined by that column. Example: A waste contains Sr-90 in a concentration of 1.85 TBq/$m^3$ (50 Ci/$m^3$) and Cs-137 in a concentration of 814 GBq/

$m^3$ (22 $Ci/m^3$). Since the concentrations both exceed the values in Column 1, Table II, they shall be compared to Column 2 values. For Sr-90 fraction, 50/150 = 0.33, for Cs-137 fraction, 22/44 = 0.5; the sum of the fractions = 0.83. Since the sum is less than 1.0, the waste is Class B.

h) Determination of concentrations in wastes. The concentration of a radionuclide may be determined by indirect methods such as use of scaling factors which relate the inferred concentration of 1 radionuclide to another that is measured, or radionuclide material accountability, if there is reasonable assurance that the indirect methods can be correlated with actual measurements. The concentration of a radionuclide may be averaged over the volume of the waste, or weight of the waste if the units are expressed as becquerel (nanocurie) per gram.

II. Radioactive Waste Characteristics

a) The following are minimum requirements for all classes of waste and are intended to facilitate handling and provide protection of health and safety of personnel at the disposal site.

1) Wastes shall be packaged in conformance with the conditions of the license issued to the site operator to which the waste will be shipped. Where the conditions of the site license are more restrictive than the provisions of Article 4, the site license conditions shall govern.

2) Wastes shall not be packaged for disposal in cardboard or fiberboard boxes.

3) Liquid waste shall be packaged in sufficient absorbent material to absorb twice the volume of the liquid.

4) Solid waste containing liquid shall contain as little free-standing and non-corrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume.

5) Waste shall not be readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.

6) Waste shall not contain, or be capable of generating, quantities of toxic oases, vapors, or fumes harmful to persons transporting, handling, or disposing of the waste. This does not apply to radioactive gaseous waste packaged in accordance with Section II(a)(8).

7) Waste shall not be pyrophoric. Pyrophoric materials contained in wastes shall be treated, prepared, and packaged to be nonflammable *****

8) Wastes in a gaseous form shall be packaged at an absolute pressure that does not exceed 1.5 atmospheres at 20°C. Total activity shall not exceed 3.7 TBq (100 Ci) per container.

9) Wastes containing hazardous, biological, pathogenic, or infectious material shall be treated to reduce to the maximum extent practicable the potential hazard from the non-radiological materials.

b) The following requirements are intended to provide stability of the waste. Stability is intended to ensure that the waste does not degrade and affect overall stability of the site through slumping, collapse, or other failure of the disposal unit and thereby lead to water infiltration. Stability is also a factor in limiting exposure to an inadvertent intruder, since it provides a recognizable and nondispersible waste.

1) Waste shall have structural stability. A structurally stable waste form will generally maintain its physical dimensions and its form, under the expected disposal conditions such as weight of overburden and compaction equipment, the presence of moisture, and microbial activity, and internal factors such as radiation effects and chemical changes. Structural stability can be provided by the waste form itself, processing the waste to a stable form, or placing the waste in a disposal container or structure that provides stability after disposal.

2) Notwithstanding the provisions in Section II(a)(3) and (4), liquid wastes, or wastes containing liquid, shall be converted into a form that contains as little free-standing and noncorrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume of the waste when the waste is in a disposal container designed to ensure stability, or 0.5% of the volume of the waste for waste processed to a stable form.

3) Void spaces within the waste and between the waste and its package shall be reduced to the extent practicable.

III. Labeling

Each package of waste shall be clearly labeled to identify whether it is Class A, Class B, or Class C waste, in accordance with Section I.

*****See (A)(4) of these regulations for definition of pyrophoric.

**Historical Note**

Adopted effective August 10, 1994 (Supp. 94-3).

**APPENDIX E. QUANTITIES FOR USE WITH DECOMMISSIONING**

| Material | Microcurie | Material | Microcurie |
|---|---|---|---|
| Americium-241 | 0.01 | Iodine-134 | 10 |
| Antimony-122 | 100 | Iodine-135 | 10 |
| Antimony-124 | 10 | Iridium-192 | 10 |
| Antimony-125 | 10 | Iridium-194 | 100 |
| Arsenic-73 | 100 | Iron-55 | 100 |
| Arsenic-74 | 10 | Iron-59 | 10 |
| Arsenic-76 | 10 | Krypton-85 | 100 |
| Arsenic-77 | 100 | Krypton-87 | 10 |
| Barium-131 | 10 | Lanthanum-140 | 10 |
| Barium-133 | 10 | Lutetium-177 | 100 |
| Barium-140 | 10 | Manganese-52 | 10 |
| Bismuth-210 | 1 | Manganese-54 | 10 |
| Bromine-82 | 10 | Manganese-56 | 10 |
| Cadmium-109 | 10 | Mercury-197m | 100 |
| Cadmium-115m | 10 | Mercury-197 | 100 |
| Cadmium-115 | 100 | Mercury-203 | 10 |
| Calcium-45 | 10 | Molybdenum-99 | 100 |
| Calcium-47 | 10 | Neodymium-147 | 100 |
| Carbon-14 | 100 | Neodymium-149 | 100 |
| Cerium-141 | 100 | Nickel-59 | 100 |
| Cerium-143 | 100 | Nickel-63 | 10 |
| Cerium-144 | 1 | Nickel-65 | 100 |
| Cesium-131 | 1,000 | Niobium-93m | 10 |
| Cesium-134m | 100 | Niobium-95 | 10 |
| Cesium-134 | 1 | Niobium-97 | 10 |
| Cesium-135 | 10 | Osmium-185 | 10 |
| Cesium-136 | 10 | Osmium-191m | 100 |
| Cesium-137 | 10 | Osmium-191 | 100 |
| Chlorine-36 | 10 | Osmium-193 | 100 |
| Chlorine-38 | 10 | Palladium-103 | 100 |
| Chromium-51 | 1,000 | Palladium-109 | 100 |
| Cobalt-58m | 10 | Phosphorus-32 | 10 |
| Cobalt-58 | 10 | Platinum-191 | 100 |
| Cobalt-60 | 1 | Platinum-193m | 100 |
| Copper-64 | 100 | Platinum-193 | 100 |
| Dysprosium-165 | 10 | Platinum-197m | 100 |
| Dysprosium-166 | 100 | Platinum-197 | 100 |
| Erbium-169 | 100 | Plutonium-239 | 0.01 |
| Erbium-171 | 100 | Polonium-210 | 0.1 |
| Europium-152 (9.2 h) | 100 | Potassium-42 | 10 |
| Europium-152 (13 yr) | 1 | Praseodymium-142 | 100 |
| Europium-154 | 1 | Praseodymium-143 | 100 |
| Europium-155 | 10 | Promethium-147 | 10 |
| Fluorine-18 | 1,000 | Promethium-149 | 10 |
| Gadolinium-153 | 10 | Radium-226 | 0.01 |
| Gadolinium-159 | 100 | Rhenium-186 | 100 |
| Gallium-72 | 10 | Rhenium-188 | 100 |
| Germanium-71 | 100 | Rhodium-103m | 100 |
| Gold-198 | 100 | Rhodium-105 | 100 |
| Gold-199 | 100 | Rubidium-86 | 10 |
| Hafnium-181 | 10 | Rubidium-87 | 10 |
| Holmium-166 | 100 | Ruthenium-97 | 100 |
| Hydrogen-3 | 1,000 | Ruthenium-103 | 10 |
| Indium-113m | 100 | Ruthenium-105 | 10 |
| Indium-114m | 10 | Ruthenium-106 | 1 |
| Indium-115m | 100 | Samarium-151 | 10 |
| Indium-115 | 10 | Samarium-153 | 100 |
| Iodine-125 | 1 | Scandium-46 | 10 |
| Iodine-126 | 1 | Scandium-47 | 100 |
| Iodine-129 | 0.1 | Scandium-48 | 10 |
| Iodine-131 | 1 | Selenium-75 | 10 |
| Iodine-132 | 10 | Silicon-31 | 100 |
| Iodine-133 | 1 | Silver-105 | 10 |

* To convert µCi to kBq, multiply the µCi value by 37.

| Material | Microcurie |
|---|---|
| Silver-110m | 1 |
| Silver-111 | 100 |
| Sodium-22 | 1 |
| Sodium-24 | 10 |
| Strontium-85 | 10 |
| Strontium-89 | 1 |
| Strontium-90 | 0.1 |
| Strontium-91 | 10 |
| Strontium-92 | 10 |
| Sulfur-35 | 100 |
| Tantalum-182 | 10 |
| Technetium-96 | 10 |
| Technetium-97m | 100 |
| Technetium-97 | 100 |
| Technetium-99m | 100 |
| Technetium-99 | 10 |
| Tellurium-125m | 10 |
| Tellurium-127m | 10 |
| Tellurium-127 | 100 |
| Tellurium-129m | 10 |
| Tellurium-129 | 100 |
| Tellurium-131m | 10 |
| Tellurium-132 | 10 |
| Terbium-160 | 10 |
| Thallium-200 | 100 |
| Thallium-201 | 100 |
| Thallium-202 | 100 |
| Thallium-204 | 10 |
| Thorium (natural)** | 100 |
| Thulium-170 | 10 |
| Thulium-171 | 10 |
| Tin-113 | 10 |
| Tin-125 | 10 |
| Tungsten-181 | 10 |
| Tungsten-185 | 10 |
| Tungsten-187 | 100 |
| Uranium (natural)** | 100 |
| Uranium-233 | 0.01 |
| Uranium-234 | 0.01 |
| Uranium-235 | 0.01 |
| Vanadium-48 | 10 |
| Xenon-131m | 1,000 |
| Xenon-133 | 100 |
| Xenon-135 | 100 |
| Ytterbium-175 | 100 |
| Yttrium-90 | 10 |
| Yttrium-91 | 10 |
| Yttrium-92 | 100 |
| Yttrium-93 | 100 |
| Zinc-65 | 10 |
| Zinc-69m | 100 |
| Zinc-69 | 1,000 |
| Zirconium-93 | 10 |
| Zirconium-95 | 10 |
| Zirconium-97 | 10 |
| Any alpha emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition | 0.01 |
| Any radionuclide other than alpha emitting radionuclides, not listed above or mixtures of beta emitters of unknown composition | 0.1 |

*To convert µCi to kBq, multiply the µCi value by 37.
** Based on alpha disintegration rate of Th-232, Th-230 and their daughter products.
*** Based on alpha disintegration rate of U-238, U-234, and U-235.

NOTE: Where there is involved a combination of isotopes in known amounts, the limit for the combination should be derived as follows: Determine, for each isotope in the combination, the ratio between the quantity present in the combination and the limit otherwise established for the specific isotope when not in combination. The sum of such ratios for all the isotopes in the combination may not exceed "1" - that is, unity.

**Historical Note**

Adopted effective August 10, 1994 (Supp. 94-3).

**ARRA-6. Repealed**

**Historical Note**

Adopted effective February 25, 1985 (Supp. 85-1). Form repealed, new form adopted in Article 10 effective August 10, 1994 (Supp. 94-3).

**ARRA-7. Repealed**

**Historical Note**

Adopted effective February 25, 1985 (Supp. 85-1). Repealed effective August 10, 1994 (Supp. 94-3).

**ARRA-8. Repealed**

**Historical Note**

Adopted effective February 25, 1985 (Supp. 85-1). Repealed effective August 10, 1994 (Supp. 94-3).

## ARTICLE 5. RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS

**R12-1-501. Limits on Levels of Radiation for Radiographic Exposure Devices and Storage Containers**

**A.** Radiographic exposure devices measuring less than 4 inches (10 centimeters) from the sealed source storage position to any exterior surface of the device shall have no radiation level in excess of 500 microsievert (50 millirem) per hour at 6 inches (15 centimeters) from any exterior surface of the device.

**B.** Radiographic exposure devices measuring 4 inches (10 centimeters) or more from the sealed source storage position to any exterior surface of the device, and all storage containers for sealed sources or for radiographic exposure devices, shall have no radiation level in excess of 2 millisievert (200 millirem) per hour at any exterior surface, and 100 microsievert (10 millirem) per hour at 40 inches (one meter) from any exterior sur-

face. The radiation levels specified are with the sealed source in the shielded position.

**Historical Note**

Former Rule Section E.1; Former Section R12-1-501 repealed, new Section R12-1-501 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-501 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-502. Radiographic Equipment Standards and Equipment Failure Notification**

**A.** Each x-ray machine shall be provided with a lock designed to prevent unauthorized use or accidental production of radiation and shall be kept locked at all times except when under the direct surveillance of a radiographer or radiographer's assistant.

**B.** Each radiographic exposure device, storage container and source changer shall be provided with:

1. Exposure Devices:
   a. A lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from the shielded position; and
   b. Shall be kept locked when not under the direct surveillance of a radiographer or radiographer's assistant, or as may be otherwise authorized in R12-1-531. In addition, during radiographic operations the sealed source assembly shall be secured in the shielded position each time the source is returned to that position.
2. Source Storage Containers and Source Changers:
   a. A lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position; and
   b. Shall be kept locked when containing sealed sources, except when under the direct surveillance of a radiographer or a radiographer's assistant.

**C.** Equipment used in industrial radiographic operations shall meet the following minimum criteria:

1. Each radiographic exposure device and all associated equipment shall meet the requirements specified in American National Standard Publication N43.9-1991 (previously N432-1980) "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography," 1991 Edition, published October 24, 1991, by the American National Standards Institute, incorporated herein by reference and on file with the Office of the Secretary of State.
2. In addition to the requirements specified in paragraph (1) of this subsection, the following requirements apply to radiographic exposure devices and associated equipment.
   a. The licensee shall have available for review documented proof that each device and associated equipment meets the aforementioned standard;
   b. Each radiographic exposure device shall have attached to it by the user, a durable, legible, clearly visible label bearing the following:
      i. Chemical symbol and mass number of the radionuclide in the device:
      ii. Activity and the date on which this activity was last measured;
      iii. Model number and serial number of the sealed source:
      iv. Manufacturer of the sealed source: and
      v. Licensee's name, address, and telephone number.
   c. Radiographic exposure devices intended for use as Type B transport containers must meet the applicable requirements of 10 CFR 71.51, 1993 Edition, published January 1, 1993, by the Office of the Federal Register National Archives and Records Administration, incorporated herein by reference and on file with the Office of the Secretary of State.
   d. Modification of my exposure devices and associated equipment is prohibited unless the design of any replacement component, including source holder, source assembly, controls or guide tubes would not compromise the design safety features of the system.
3. In addition to the requirements specified in paragraphs (1) and (2) of this subsection, the following requirements apply to radiographic exposure devices and associated equipment that allow the source to be moved out of the device for routine operation.
   a. The coupling between the source assembly and the control cable must be designed in such a manner that the source assembly will not become disconnected if cranked outside the guide tube. The coupling must be such that it cannot be unintentionally disconnected under normal and reasonably foreseeable abnormal conditions.
   b. The device must automatically secure the source assembly when it is cranked back into the fully shielded position within the device. This securing system may only be released by means of a deliberate operation on the exposure device.
   c. The outlet fittings, lock box, and drive cable fittings on each radiographic exposure device must be equipped with safety plugs or covers which must be installed during storage and transportation to protect the source assembly from water, mud, sand, or other foreign matter.
   d. Each sealed source or source assembly must have attached to it or engraved in it, a durable, legible, visible label with the words: "**DANGER - RADIOACTIVE**". The label must not interfere with the safe operation of the exposure device or associated equipment.
   e. The guide tube must have passed the crushing tests for the control tube as specified in ANSI N43.9-1991 and a kinking resistance test that closely approximates the kinking forces likely to be encountered during use.
   f. Guide tubes must be used when moving the source out of the device.
   g. An exposure head or similar device designed to prevent the source assembly from passing out the end of the guide tube must be attached to the outermost end of the guide tube during radiographic operations.
   h. The guide tube exposure head connection must be able to withstand the tensile test for control units specified in ANSI N43.9-1991.
   i. Source changers must provide a system of assuring that the source will not be accidentally withdrawn from the changer when connecting or disconnecting the drive cable to or from a source assembly.
   j. All newly manufactured radiographic exposure devices and associated equipment acquired by licensees after January 10, 1992, must comply with the requirements of this Section.
   k. All radiographic exposure devices and associated equipment in use after January 10, 1996, must comply with the requirements of this Section.

**D.** In addition to the notification requirements in Article 4, each licensee or registrant shall submit a written report within 30 days to the Agency whenever 1 of the following equipment failure events occurs:
1. A source assembly cannot be returned to the fully-shielded position and properly secured;
2. The source assembly becomes unintentionally disconnected from the drive cable;
3. All components critical to safe operation of the radiographic exposure device fails to properly perform its intended function;
4. An indicator on a radiation-producing machine fails to show that radiation is being produced, an exposure switch fails to terminate production of radiation when turned to the off position, or a safety interlock fails to terminate X-ray production; or
5. Personnel overexposure submitted under R12-1-444, involving failure of safety components of radiography exposure devices, source storage containers, and source changers.

**E.** Each report required in subsection (D) above shall contain the following information:
1. A description of the equipment problem;
2. Cause of each incident, if known;
3. Manufacturer and model number of equipment involved in incident;
4. Location, time, and date of the incident:
5. Actions taken to regain normal operations;
6. Corrective actions taken or planned to prevent recurrence; and
7. Names of personnel involved in the incident.

**Historical Note**
Former Rule Section E.2; Former Section R12-1-502 repealed, new Section R12-1-502 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-502 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-503. Storage precautions**
Locked radiographic exposure devices, source changers, storage containers, and x-ray machines shall be physically secured to prevent tampering or removal by unauthorized persons.

**Historical Note**
Former Rule Section E.3; Former Section R12-1-503 repealed, new Section R12-1-503 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-503 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-504. Radiation Survey Instruments**
**A.** The licensee or registrant shall maintain sufficient calibrated and operable radiation survey instruments to make physical radiation surveys as required by this Article and Article 4 of this Chapter. Instrumentation required by this Article shall have a range such that 20 microsievert (2 millirem) per hour through 10 millisievert (1 rem) per hour can be measured.

**B.** Each radiation survey instrument shall be calibrated:
1. At energies appropriate for use and at intervals not to exceed:
   a. Three months and after each instrument servicing for instruments used in radiographic operations utilizing sealed sources containing radioactive material, or
   b. One year for instruments used in radiographic operations utilizing only x-ray machines;
2. Such that accuracy within plus or minus 20 percent can be demonstrated; and
3. At 2 or more widely separated points, other than zero, on each scale.

**C.** Records of the calibrations shall be retained for 3 years after the calibration date.

**Historical Note**
Former Rule Section E.4; Former Section R12-1-504 repealed, new Section R12-1-504 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-504 repealed, new Section R12-1-504 adopted effective December 20, 1985 (Supp. 85-6). Former Section R12-1-504 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-505. Leak Testing, Repair, Tagging, Opening, Modification, and Replacement of Sealed Sources**
**A.** The replacement of any sealed source permanently mounted in a radiographic exposure device and the leak testing, repair, tagging, opening or any modification of any sealed source shall be performed only by persons specifically licensed to do so by the Agency, the U. S. Nuclear Regulatory Commission, or an Agreement or Licensing State.

**B.** Each sealed source shall be tested for leakage at intervals not to exceed 6 months. In the absence of a certificate from a transferor that a test has been made within the 6 months prior to the transfer, the sealed source shall not be put into use until tested.

**C.** The leak test shall be capable of detecting the presence of 185 becquerel (0.005 microcurie) of removable contamination. The leak test for a sealed source in a radiographic exposure device or source changer shall consist of swab testing the exit port using a procedure submitted in detail as part of the license application. Records of leak test results shall be kept in units of microcurie or becquerel and retained for 3 years after the next required leak test is performed.

**D.** Any leak test which reveals the presence of removable radioactive material in excess of the amount specified in subsection (C) above shall be considered evidence that the sealed source is leaking. The licensee shall immediately withdraw the equipment involved from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with this Chapter. A report shall be filed with the Agency within 5 days of receiving the results of the test describing the equipment involved, the test results, and the corrective action taken.

**E.** A sealed source which is not fastened to or contained in a radiographic exposure device or source changer shall have permanently attached to it a durable tag at least 1 inch (2.5 centimeters) square bearing the prescribed radiation caution symbol in conventional colors, magenta or purple on a yellow background, and at least the instructions: “DANGER - RADIOACTIVE MATERIAL - DO NOT HANDLE - NOTIFY CIVIL AUTHORITIES IF FOUND”.

**Historical Note**
Former Rule Section E.5; Former Section R12-1-505 repealed, new Section R12-1-505 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-505 repealed, new Section R12-1-505 adopted effective December 20, 1985 (Supp. 85-6). Amended subsections (A), (F) and (G) effective May 2, 1988 (Supp. 88-2). Former Section R12-1-505 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-506. Quarterly Inventory**
Each licensee or registrant shall conduct a quarterly physical inventory to account for all sources of radiation received or possessed. The records of the inventories shall be retained for 3 years from the date of the inventory and shall show for each source the associated radioactivity, the kind of radioactive material, the number and models of x-ray machines, if applicable, the location of all sources of radiation, the date of the inventory, and the signature of the individual performing the inventory.

**Historical Note**
Former Rule Section E.6; Former Section R12-1-506 repealed, new Section R12-1-506 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-506 repealed, new Section R12-1-506 adopted effective December 20, 1985 (Supp. 85-6). Amended subsection (A) effective May 2, 1988 (Supp. 88-2). Former Section R12-1-506 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-507. Utilization logs**
Each licensee or registrant shall maintain current logs, which shall be retained for 3 years from the date of the recorded event and which shows the following information for each source of radiation:

1. A description (or make and model number) of each source of radiation or storage container in which the sealed source is located;
2. The identity of the radiographer to whom assigned;
3. Locations where used and dates of use; and
4. The voltage, current, and exposure time for each radiographic exposure employing an x-ray machine.

**Historical Note**
Former Section R12-1-507 repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-508. Inspection and Maintenance of Radiographic Exposure Devices and Storage Containers**

**A.** The licensee shall check for defects in radiographic exposure devices, storage containers, and source changers prior to use each day the equipment is used.

**B.** The licensee shall conduct a program for inspection and maintenance of radiographic exposure devices, storage containers and source changers at intervals not to exceed 3 months or prior to the first use thereafter to assure proper functioning of components important to safety. All parts shall be maintained in accordance with the manufacturer's specifications. Records of inspection and maintenance shall be retained for 3 years.

**C.** If any inspection reveals damage to components critical to radiation safety, the device shall be removed from service until repairs have been made.

**Historical Note**
Former Section R12-1-508 repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective April 2, 1990 (Supp. 90-2). Heading amended effective August 10, 1994 (Supp. 94-3).

**R12-1-509. Permanent Sealed Source Radiographic Installations**
Permanent radiographic installations having high radiation area entrance controls of the types described in R12-1-420(A) shall also meet the following requirements:

1. Each entrance that is used for personnel access to the high radiation area in a permanent radiographic installation shall have both visible and audible warning signals to warn of the presence of radiation. The visible signal shall be activated by radiation whenever the source is exposed. The audible signal shall be activated when an attempt is made to enter the installation while the source is exposed; and
2. The control device or alarm system shall be tested for proper operation at the beginning of each use. Records of such tests shall be retained for 3 years.

**Historical Note**
Former Section R12-1-509 repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-510. Operating Requirements**
Each licensee shall provide, as a minimum, 2 radiographic personnel for each exposure device in use for any industrial radiography conducted at a location other than at a permanent radiographic facility (shielded room, bay, or bunker) meeting the requirements of R12-1-509(1). If 1 of the personnel is a radiographer's assistant, the other shall be a radiographer authorized by the license.

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective August 10, 1994 (Supp. 94-3).

**R12-1-511. License and Registration Application Requirements for Industrial Radiography**
If a licensee has satisfied the licensing requirements set forth in R12-1-309, the Agency shall issue a specific license or registration for industrial radiography if:

1. The applicant has a program to provide the instruction specified in R12-1-521 for radiographers and assistant radiographers. The applicant shall submit to the Agency a schedule or description of the training program which specifies the:
   a. Initial training;
   b. Periodic training;
   c. On-the-job training; and
   d. Means of testing to be used by the licensee or registrant to determine a radiographer's or assistant radiographer's knowledge and understanding of, and ability to comply with, the Agency's rules and licensing requirements, and the operating and emergency procedures of the applicant.
2. The applicant has established and submits to the Agency written operating and emergency procedures to fulfill the requirements of this Chapter.
3. The applicant has an internal inspection program adequate to assure that Agency rules, Agency license and registration provisions, and the applicant's operating and emergency procedures are followed by radiographers and radiographers' assistants. The inspection program shall include internal inspections at intervals not to exceed 3 months and inspection record retention for 2 years.
4. The applicant submits to the Agency a description of the overall organizational structure of the instruction program, including specified delegations of authority and responsibility for operation of the program.
5. The sealed source radiographer applicant who desires to conduct leak tests has established procedures to be followed in leak testing sealed sources for possible leakage and contamination and submits to the Agency a description of such procedures including:
   a. Instrumentation to be used;

b. Method of performing tests, for example, points on equipment to be smeared and method of taking smear; and
c. Pertinent experience of the person who will perform the test; and

6. The applicant complies with appropriate provisions of this Article and Article 3.

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-512. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-513. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-514. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-515. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-516. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-517. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-518. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-519. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-520. Repealed**

**Historical Note**
Repealed effective December 20, 1985 (Supp. 85-6).

**R12-1-521. Requirements for Radiographers and Radiographer's Assistants**

**A.** The licensee or registrant shall not permit any individual to act as a radiographer until such individual:
1. Has been instructed in the following subjects:
a. Fundamentals of radiation safety;
i. Characteristics of gamma, neutron, and x radiation
ii. Units of dose and activity
iii. Significance of radiation dose
(1) Radiation protection standards
(2) Biological effects of radiation
iv. Levels of radiation from sources of radiation
v. Methods of controlling radiation dose
(1) Working time
(2) Working distance
(3) Shielding
b. Radiation detection instrumentation to be used;
i. Use of radiation survey instruments
(1) Operation
(2) Calibration
(3) Limitations
ii. Survey techniques
iii. Use of personnel monitoring equipment
(1) Film badges
(2) Thermoluminescent dosimeters
(3) Alarming and direct reading dosimeters
c. Radiographic equipment to be used;
i. Remote handling equipment
ii. Radiographic exposure devices and sealed sources
iii. Storage containers and source changers
iv. Operation and control of x-ray equipment
d. Requirements of federal regulations and state rules;
e. The licensee's or registrant's written operating and emergency procedures;
f. Case histories of radiography accidents; and
2. Has received copies of this Article, Articles 4, and 10, the license or certificate of registration, and the licensee's or registrant's operating and emergency procedures; and
3. Has demonstrated competence to use the source of radiation, related handling tools, and survey instruments which will be employed in his or her assignment; and
4. Has demonstrated understanding of the requirements in this subsection by successful completion of a written test, approved by the Agency in accordance with R12-1-511, with a score of 70% or better and a field examination with a score of 100% on the subjects covered.

**B.** The licensee or registrant shall not permit any individual to act as a radiographer's assistant until the individual:
1. Has received copies of and instructions in the licensee's or registrant's operating and emergency procedures; and
2. Has demonstrated competence to use under the personal supervision of the radiographer the sources of radiation, related handling tools, and radiation survey instruments which will be employed in the assignment; and
3. Has demonstrated understanding of the requirements in this subsection by successful completion of a written or oral test, approved by the Agency in accordance with R12-1-511, with a score of 70% or better and a field examination with a score of 100% on the subjects covered.

**C.** Each licensee or registrant shall retain records of training and testing which demonstrate that the requirements of this rule are met for each radiographer and radiographer's assistant.

**D.** Each licensee or registrant shall conduct an internal audit program to ensure that the rules of this Chapter, the conditions of the license, and the licensee's operating and emergency procedures are followed by each radiographer and radiographer's assistant. The audit program shall include:
1. The observation of the performance of each radiographer and radiographer's assistant during an actual radiographic operation at intervals not to exceed 3 months;
2. A provision that, if a radiographer or a radiographer's assistant has not participated in a radiographic operation for more than 3 months since the last audit, that individual's performance must be observed and recorded the next time the individual participates in a radiographic operation; and
3. The retention of inspection records on the performance of radiographers or radiographers' assistants for 3 years.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended

effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-522. Operating and emergency procedures**

The licensee's or registrant's operating and emergency procedures shall include instructions for at least the following:

1. The handling and use of sources of radiation to be employed such that no individual is likely to be exposed to radiation doses in excess of the limits established in Article 4, "Standards for Protection Against Radiation";
2. Methods and occasions for conducting radiation surveys;
3. Methods for controlling access to radiographic areas;
4. Methods and occasions for locking and securing sources of radiation and storage containers;
5. Personnel monitoring and the use of personnel monitoring equipment, including steps that must be taken immediately by radiography personnel in the event a pocket dosimeter is found to be off-scale;
6. Transportation to field locations, including packing of sources of radiation and storage containers in the vehicles, posting of vehicles, and control of sources of radiation during transportation;
7. Minimizing the exposure of individuals in the event of an accident;
8. The procedure for notifying proper persons in the event of an accident;
9. Maintenance of records; and
10. The inspection and maintenance of radiographic exposure devices, storage containers, and radiation machines.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-523. Personnel Monitoring Control**

**A.** The licensee or registrant shall not permit any individual to act as a radiographer or as a radiographer's assistant unless, at all times during radiographic operations, each individual wears a direct-reading pocket dosimeter, either a film badge or a thermoluminescent dosimeter (TLD), and an alarming ratemeter at all times during radiographic operations. For permanent radiographic installations where other appropriate alarming warning devices are in routine use, the wearing of an alarming ratemeter is not required.

**B.** Pocket Dosimeters:

1. Pocket dosimeters shall meet the criteria in American National Standards Publication N13.5-1972, "Performance Specifications For Direct Reading and Indirect Reading Pocket Dosimeters for X- and Gamma Radiation," 1972 Edition, published December 9, 1971, by the American National Standards Institute, incorporated by reference and on file with the Agency and the Office of the Secretary of State; and shall have a range of 0 to 51.6 microcoulomb/kg (200 milliroentgen). This incorporation by reference contains no future editions or amendments.
2. Pocket dosimeters shall be recharged at the start of each work shift.
3. As a minimum, pocket dosimeters shall be recharged and initial use readings recorded:
   a. Immediately before checking out any source of radiation from an authorized storage location for the purpose of conducting industrial radiography operations; and
   b. Before beginning radiographic operations on any subsequent calendar day (if the source of radiation has not been checked back into an authorized storage site).
4. Whenever radiographic operations are concluded for the day, final use readings on pocket dosimeters shall be recorded and the accumulated occupational doses for that day determined and recorded.
5. If an individual's pocket dosimeter is discharged beyond its range (for example, goes "off scale"), industrial radiography operations by that individual shall be discontinued until the individual's film badge or TLD has been processed. The individual shall not return to work with sources of radiation until a determination of exposure to the individual has been made.
6. Pocket dosimeters shall be checked for correct response to radiation at periods not to exceed 1 year. Acceptable dosimeters shall read within plus or minus 30% of the true radiation exposure. Records of pocket dosimeter response shall be maintained for 2 years by the licensee or registrant for Agency inspection.
7. Records of pocket dosimeter readings of personnel exposure shall be maintained for 2 years by the licensee or registrant for Agency inspection. If the dosimeter readings were used to determine external radiation dose (for example, no film badge or TLD exposure records exist), the records shall be maintained until the Agency authorizes disposal.

**C.** Film badges and TLDs:

1. Each film badge or TLD shall be assigned to and worn by only 1 individual.
2. Film badges and TLDs shall be replaced monthly. After replacement, each film badge or TLD shall be returned to the supplier for processing within 14 calendar days of the exchange date specified by the personnel monitoring supplier. If a film badge or TLD cannot be processed in 14 days, the circumstances resulting in the delay shall be documented and available for Agency review.
3. A lost or damaged film badge, or TLD, shall result in the worker discontinuing work immediately until a replacement is provided and the exposure calculated for the time period from issuance to loss or damage.
4. Records of film badge or TLD personnel monitoring shall be maintained according to R12-1-419.

**D.** Alarming ratemeters:

1. Each alarming ratemeter shall have a function test to ensure that the audible alarm is functioning properly prior to use at the start of each work shift.
2. Each alarming ratemeter shall give an alarm at a preset dose rate of 129 microcoulomb/kg/hr (500 milliroentgen/hr).
3. Each alarming ratemeter shall require special means to change the preset alarm function.
4. Each alarming ratemeter shall be calibrated at intervals not to exceed 1 year for correct response to radiation. Acceptable ratemeters shall alarm within plus or minus 20% of the true radiation dose rate.
5. Records of alarming ratemeter calibration shall be maintained 2 years by the licensee or registrant for Agency inspection.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-524. Supervision of radiographers' assistants**

Whenever a radiographer's assistant uses radiographic exposure devices, sealed sources or related source handling tools, or conducts radiation surveys required by R12-1-533 to determine that the sealed source has returned to the shielded position after an exposure, the radiographer's assistant shall be under the personal supervision of a radiographer.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-525. Reserved**

**R12-1-526. Reserved**

**R12-1-527. Reserved**

**R12-1-528. Reserved**

**R12-1-529. Reserved**

**R12-1-530. Reserved**

**R12-1-531. Security**
During each radiographic operation, the radiographer or radiographer's assistant shall maintain a direct surveillance of the operation to protect against unauthorized entry into high radiation areas, as defined in Article 1, except:

1. Where the high radiation area is equipped with a control device or an alarm system as described in R12-1- 420(A), or
2. Where the high radiation area is locked to protect against unauthorized or accidental entry.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-532. Posting**
Notwithstanding any provisions in R12-1-430, areas in which radiography is being performed shall be conspicuously posted as required by R12-1-429(A) and (B).

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

**R12-1-533. Radiation surveys and survey records**

**A.** At least 1 calibrated and operable radiation survey instrument, as described in R12-1-504, shall be available and used at each site where radiographic exposures are made and at each storage area when an exposure device, storage container or sealed source is placed in storage.

**B.** A survey with a radiation survey instrument shall be made after each radiographic exposure to determine that the sealed source has been returned to its shielded position. The entire circumference of the radiographic exposure device shall be surveyed. If the radiographic exposure device has a source guide tube, the survey shall include the guide tube.

**C.** A physical radiation survey shall be made to determine that the sealed source has been returned to its shielded position at any time a radiographic exposure device is placed in a storage area. The entire circumference of the radiographic exposure device shall be surveyed.

**D.** Records of all physical radiation surveys required in this Article shall be retained for 3 years after completion of the survey, except that records of a survey to determine an individual's dose shall be retained permanently.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-534. Records required at temporary job sites**
Each licensee or registrant conducting industrial radiography at a temporary job site shall have the following records available at that site:

1. Copy of appropriate license or registration certificate;
2. Operating and emergency procedures;
3. Applicable Agency rules;
4. Survey records required pursuant to R12-1-533 for the period of operation at the site;
5. Daily dosimeter records for the period of operation at the site; and
6. The latest instrument calibration and leak test record for specific devices in use at the site.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-535. Reserved**

**R12-1-536. Reserved**

**R12-1-537. Reserved**

**R12-1-538. Reserved**

**R12-1-539. Reserved**

**R12-1-540. Reserved**

**R12-1-541. Enclosed Radiography Using X-ray Machines**

**A**. Certified and certifiable cabinet x-ray systems, as defined in Article 1, are exempt from the requirements of Article 5, provided the following conditions are met:

1. The registrant shall make, or cause to be made, an evaluation of each certified and certifiable cabinet x-ray system, at intervals not to exceed 12 months, to determine conformance with the standards for certified and certifiable cabinet x-ray systems defined in Article 1. Records of such evaluations shall be retained for 3 years from the date of their creation; and
2. Physical radiation surveys shall be performed with a survey instrument appropriate for the energy range and levels of radiation to be assessed and calibrated within the preceding 12 months.

**B.** The registrant shall ensure that cabinet x-ray systems not exempted in subsection (A) comply with the recordkeeping requirements of this Article and the following special requirements:

1. Radiation levels measured at 2 inches (5 centimeters) from any accessible exterior surface of the enclosure shall not exceed 50 microsievert (0.5 milliroentgen) in 1 hour for any combination of technical factors (for example, mA, kVp);
2. Access to the interior of the enclosure shall be possible only through interlocked doors or panels which allow production of radiation only when all such doors or panels are securely closed. Opening any point of access shall result in immediate termination of radiation production, and subsequent reactivation of the x-ray tube shall only be possible at the control panel;
3. Visible warning signals which are activated only during production of radiation shall be provided at the control panel and at each point of access to the interior of the enclosure;
4. The registrant shall make, or cause to be made, evaluations of each x-ray system to determine conformance with this Article, prior to placing such systems into use and thereafter at intervals not to exceed 3 months. Records of such evaluations shall be retained for 2 years; and
5. Physical radiation surveys to satisfy the requirements of subsection (4) shall be performed only with instrumentation meeting the requirements of R12-1-504.

**C.** The registrant shall ensure that shielded room x-ray systems comply with the recordkeeping requirements of this Article and the following special requirements:

1. Each x-ray room shall be so shielded that every location on the exterior meets the requirements for an "unrestricted area" as specified in R12-1-416;

2. Access to the interior of a shielded x-ray room shall only be possible through doors or panels which are so interlocked that radiation production is only possible when all such doors and panels are securely closed. Opening of any interlocked access points shall result in immediate termination of radiation production, and subsequent reactivation of the x-ray tube shall only be possible at the control panel;
3. Each access point shall be provided with 2 interlocks, each on a separate circuit so that failure of 1 interlock will not affect the performance of the other;
4. Visible warning signals activated only during production of radiation shall be provided at the control panel and at each point of access into the shielded room;
5. The registrant shall make, or cause to be made, evaluations of each shielded room x-ray system prior to placing the system into use and thereafter at intervals not to exceed 3 months to determine conformance with this Article. Records of such evaluations shall be retained for 2 years;
6. Physical radiation surveys shall be performed only with instrumentation meeting the requirements of R12-1-504;
7. Electrical interlocks and warning devices shall be inspected for proper operation at the beginning of each period of use, and results of these inspections shall be documented and retained for 2 years;
8. The registrant shall not permit any individual to operate an x-ray machine for shielded room radiography unless that individual has received a copy of, and instruction in, the operating procedures and has demonstrated competence in the safe use of such equipment;
9. An individual shall not occupy the interior of any shielded room x-ray system during production of radiation; and
10. The registrant shall provide personnel monitoring devices that meet the requirements of R12-1-523(C) to each shielded room x-ray machine operator, and require that each operator use the devices.
11. The registrant shall maintain records of:
    a. Quarterly inventories for mobile systems, as prescribed in R12-1-506; and
    b. Utilization of all systems, as prescribed in R12-1-507.
12. Records shall be maintained for 3 years from the date of the inventory or utilization.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-542. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective August 10, 1994 (Supp. 94-3).

**Appendix A. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Repealed effective April 2, 1990 (Supp. 90-2).

## ARTICLE 6. USE OF X-RAYS IN THE HEALING ARTS

**R12-1-601. Repealed**

**Historical Note**
Former Rule Section F.1; Former Section R12-1-601 repealed, new Section R12-1-601 adopted effective June 30, 1977 (Supp. 77-3). Repealed effective August 8, 1986 (Supp. 86-4).

**R12-1-602. Definitions**
The following definitions apply:

1. "Accessible surface" means the external surface of the enclosure or housing provided by the manufacturer.
2. "Added filter" means the filter added to the inherent filtration.
3. "Aluminum equivalent" means the thickness of aluminum (type 1100 alloy) affording the same attenuation, under specified conditions, as the material in question. (The nominal chemical composition of type 1100 aluminum alloy is 99.00 percent minimum aluminum, 0. 12 percent copper.)
4. "Assembler" means any person engaged in the business of assembling, replacing, or installing 1 or more components into an x-ray system or subsystem.
5. "Attenuation block" means a block or stack, having dimensions 20 cm by 20 cm by 3.8 cm (7.9 inches by 7.9 inches by 1.5 inches) of type 1100 aluminum alloy or other materials having equivalent attenuation.
6. "Automatic exposure control" means a device which automatically controls 1 or more technique factors in order to obtain at a preselected location or locations a required quantity of radiation (See "Phototimer").
7. "Barrier" (See "Protective barrier").
8. "Beam Axis" means a line from the source through the centers of the x-ray fields.
9. "Beam-limiting device" means a device which provides a means to restrict the dimensions of the x-ray field.
10. "Changeable filters" means any filter, exclusive of inherent filtration, which can be removed from the useful beam through any electronic, mechanical or physical process.
11. "Coefficient of variation" means the ratio of the standard deviation to the mean value of a population of observations.
12. "Contact therapy system" means that the x-ray tube port is put in contact with or within 5 centimeters (2 inches) of the surface being treated.
13. "Control panel" means that part of the x-ray control upon which are mounted the switches, knobs, pushbuttons, and other hardware necessary for manually setting the technique factors.
14. "Dead-man switch" means a switch so constructed that a circuit closing contact can be maintained only by continuous pressure on the switch by the operator.
15. "Diagnostic source assembly" means the tube housing assembly with a beam-limiting device attached.
16. "Diagnostic-type protective tube housing" means an x-ray tube housing so constructed that the leakage radiation measured at the distance of 1 meter from the source cannot exceed 25.8 μC/kg (100 mR) in 1 hour when the tube is operated at its maximum continuous rated current for the maximum rated tube potential.
17. "Direct scattered radiation" means that scattered radiation which has been deviated in direction only by materials irradiated by the useful beam. (See "Scattered radiation")

18. "Entrance exposure rate" means the roentgens per unit time at the point where the center of the useful beam enters the patient.
19. "Equipment" (See "X-ray equipment").
20. "Filter" means material placed in the useful beam to absorb preferentially selected radiations.
21. "Fluoroscopic imaging assembly" means a subsystem in which x-ray photons produce a fluoroscopic image. It includes the image receptor or receptors such as the image intensifier and spot-film device, electrical interlocks, if any, and structural material providing linkage between the image receptor and diagnostic source assembly.
22. "Focal spot" means the area projected on the anode of the x-ray tube by the electrons accelerated from the cathode and from which the useful beam originates.
23. "Full beam detector" means a radiation detector of such size that the total cross section of the maximum size useful beam is intercepted.
24. "General purpose radiographic x-ray system" means any radiographic x-ray system which, by design, is not limited to radiographic examination of a specific anatomical region.
25. "Gonadal shield" means a protective barrier for the testes or ovaries.
26. "Half-value layer (HVL)" means the thickness of specified material which attenuates the beam of radiation to an extent such that the intensity is reduced to 1/2 of its original value. In this definition the contribution of all scattered radiation, other than any which might be present initially in the beam concerned, is deemed to be excluded.
27. "Healing Arts Radiography" means the practice of applying x-radiation to human patients for diagnostic or therapeutic purposes at the direction of a licensed practitioner. Healing arts radiography includes any or all of the following acts:
    a. Positioning the x-ray beam with respect to the patient,
    b. Anatomical positioning of the patient,
    c. Selecting exposure factors, or
    d. Initiating the exposure.
28. "Image receptor" means any device, such as a fluorescent screen or radiographic film, which transforms incident x-ray photons either into a visible image or into another form which can be made into a visible image by further transformation.
29. "Inherent filtration" means the filtration permanently in the useful beam; it includes the window of the x-ray tube and any permanent tube or source enclosure.
30. "Interlock" means a device for precluding access to a high radiation area by automatically reducing the exposure rate upon entry by personnel.
31. "Kilovolts peak (kVp)" (See "Peak tube potential").
32. "Lead equivalent" means the thickness of lead affording the same attenuation, under specified conditions, as the material in question.
33. "Leakage radiation" means all radiation coming from within the tube housing except the useful beam.
34. "Leakage technique factors" means the technique factors associated with the tube housing assembly which are used in measuring leakage radiation. They are defined as follows:
    a. For capacitor energy storage equipment, the maximum rated number of exposures in an hour for operation at the maximum rated peak tube potential with the quantity of charge per exposure being 10 millicoulombs (mAs) or the minimum obtainable from the unit, whichever is larger.
    b. For field emission equipment rated for pulsed operation, the maximum rated number of x-ray pulses in an hour for operation at the maximum rated peak tube potential.
    c. For all other equipment, the maximum rated continuous tube current for the maximum rated peak tube potential.
35. "mA" means milliampere.
36. "mAs" means milliampere second.
37. "Mobile equipment" (See "X-ray equipment").
38. "Peak tube potential" means the maximum value of the potential difference across the x-ray tube during an exposure.
39. "Phantom" means a volume of material behaving in a manner similar to tissue with respect to the attenuation and scattering of radiation, (that is, "Breast phantom" means an artificial test object which simulates the average composition of, and various structures in, the breast).
40. "Phototimer" means a method for controlling radiation exposures to image receptors by the amount of radiation which reaches a radiation monitoring device or devices. The radiation monitoring device that is, or devices that are, part of an electronic circuit which controls the duration of the time the tube is activated.
41. "Portable equipment" (See "X-ray equipment").
42. "Primary protective barrier" (See "Protective barrier").
43. "Protective apron" means an apron made of radiation absorbing materials, used to reduce radiation exposure.
44. "Protective barrier" means a barrier of radiation absorbing material or materials used to reduce radiation exposure.
    a. "Primary protective barrier" means the material, excluding filters, placed in the useful beam, for protective purposes, to reduce the radiation exposure.
    b. "Secondary protective barrier" means a barrier sufficient to attenuate the stray radiation to the required degree.
45. "Protective glove" means a glove made of radiation absorbing materials used to reduce radiation exposure.
46. "Scattered radiation" means radiation that, during passage through matter, has been deviated in direction. (See "Direct scattered radiation")
47. "Secondary protective barrier" (See "Protective barrier").
48. "Shutter" means an adjustable device, generally of lead, fixed to an x-ray tube housing to intercept or collimate the useful beam and which has a lead equivalency not less than that of the tube-housing assembly.
49. "Source" means the focal spot of the x-ray tube.
50. "Source-image receptor distance (SID)" means the distance from the source to the center of the input surface of the image receptor.
51. "Spot check" means an abbreviated calibration procedure which is performed to assure that a previous calibration continues to be valid.
52. "Stationary equipment" (See "X-ray equipment").
53. "Stray radiation" means the sum of leakage and scattered radiation.
54. "Therapeutic-type protective tube housing" means:
    a. For x-ray therapy equipment not capable of operating at 500 kVp or above, the following definition applies: An x-ray tube housing so constructed that the leakage radiation at a distance of 1 meter from the sources does not exceed 258 μC/kg (1 roentgen) in an hour when the tube is operated at its maximum

rated continuous current for the maximum rated tube potential.

b. For x-ray therapy equipment capable of operating at 500 kVp or above, the following definition applies: An x-ray tube housing so constructed that the leakage radiation at a distance of 1 meter from the source does not exceed 0.1% of the useful beam dose rate at 1 meter from the source for any of its operating conditions.

55. "Useful beam" means the radiation which passes through the tube housing port and the aperture of the beam-limiting device when the exposure switch or timer is activated.
56. "Virtual source" means a point from which radiation appears to originate.
57. "X-ray equipment" means an x-ray system, subsystem, or component described by the following terms:
    a. Mobile means x-ray equipment mounted on a permanent base with wheels and/or casters for moving while completely assembled.
    b. Portable means x-ray equipment designed to be hand-carried.
    c. Stationary means x-ray equipment which is installed in a fixed location.
    d. Transportable mobile means x-ray equipment installed in a vehicle or trailer.

**Historical Note**

Former Rule Section F.2; Former Section R12-1-602 repealed, new Section R12-1-602 adopted effective June 30, 1977 (Supp. 77-3). Amended effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-603. General Safety Provisions**

**A.** No person shall make, sell, lease, transfer, lend or install x-ray equipment or the supplies used in connection with such equipment unless such supplies and equipment, when properly placed in operation and properly used, will meet the requirements of these rules. This includes responsibility for the delivery of cones or collimators, filters, adequate timers, and fluoroscopic shutters (where applicable).

**B.** The registrant shall be responsible for directing the operation of x-ray machines under the registrant's control and assuring that all of the following provisions are met in the operation of x-ray machines:
1. The registrant shall not permit any individual to engage in the practice of "healing arts radiography" using equipment under the registrant's control, unless the individual possesses a valid certificate issued by, or is exempt from, the Medical Radiologic Technology Board of Examiners, pursuant to A.R.S. § 32-2800.
2. The registrant shall maintain records documenting compliance with subsection (B)(1) for each individual using equipment under the registrants' control practicing "Healing Arts Radiography".
3. The registrant shall provide safety rules to each individual operating x-ray equipment under his control, including any restrictions in operating procedures necessary for the safe use of the equipment and require that the operator demonstrate familiarity with these rules.

**C.** Shielding
1. Each installation shall be provided with such primary and secondary protective barriers as are necessary to assure compliance with Article 4 of this Chapter.
2. The required attenuation of protective barriers shall be as determined in accordance with the National Council on Radiation Protection Report No. 49, "Structural Shielding Design and Evaluation for Medical Use of X-rays and Gamma Rays of Energies Up To 10 MeV", September 15, 1976, edition, published by the National Council on Radiation Protection and Measurement, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
3. Protective barriers shall meet these additional provisions.
    a. Lead barriers shall be mounted in such a manner that they will not sag or cold-flow because of their own weight and shall be protected against mechanical damage.
    b. Joints between different kinds of protective materials shall be so designed that the overall protection of the barrier is not impaired.
    c. Joints at the floor and ceiling shall be so designed that the overall protection is not impaired.
    d. Windows, window frames, doors, and door frames shall have the same lead equivalent as that required of the adjacent wall.
    e. Holes in protective barriers shall be covered so that overall attenuation is not impaired.

**D.** Darkroom Requirements.
1. The darkroom shall be light-tight as determined using 1 of the following formulas:
    a. (Base + Fog) - Base ≤ 0.03 optical density units; or
    b. Using an exposed film, (Base + Fog) - Base ≤ 0.10 optical density units.
    Note: Base is the optical density of unexposed film as used at the facility; (Base + Fog) is the optical density of Base unexposed film exposed in the darkroom for 2 minutes.
2. A thermometer and timer operable and appropriate to the type of film processing shall be in use in the darkroom. Film shall be developed in accordance with the manufacturer's instructions.

**Historical Note**

Former Rule Section F.3; Former Section R12-1-603 repealed, new Section R12-1-603 adopted effective June 30, 1977 (Supp. 77-3). Amended effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-604. General Procedural Requirements**

**A.** The registrant shall ensure the following procedural requirements are met in the operation of x-ray equipment:
1. An x-ray machine which does not meet the provisions of this Chapter shall not be operated for diagnostic or therapeutic purposes, unless specifically exempted by the Agency.
2. Except for patients who cannot be moved out of the room, only the individuals required for the radiological procedure or in training may be present in the room during radiographic exposure, and all the following requirements shall apply:
    a. All individuals shall be positioned such that no part of the body, including the extremities not protected by 0.5 mm lead equivalent, will be struck by the useful beam.
    b. Staff and ancillary personnel shall be protected from the direct scatter radiation by protective aprons or whole body protective barriers of not less than 0.25 mm lead equivalent.
    c. Individuals, other than the patient to be examined, who cannot be removed from the room during mobile or portable radiography shall be protected

from the direct scatter radiation by whole body protective barriers of 0.25 mm lead equivalent or shall be so positioned that the nearest portion of the body is at least 2 meters (6.5 feet) from both the tube head and the nearest edge of the image receptor.

d. When a portion of the body of any staff or ancillary personnel is potentially subjected to stray radiation which could result in that individual receiving 1/4 of the maximum permissible dose as defined in Article 4 of this Chapter, additional protective devices may be required by the Agency.

3. Persons shall not be exposed to the useful beam except for a healing arts purpose authorized by a licensed practitioner of the healing arts. Specifically prohibited are:
   a. Exposure of an individual without meeting the required healing art requirements and proper prescription;
   b. Exposure of an individual for training, demonstration, or other non-healing arts purpose;
   c. Exposure of an individual for the purpose of healing arts screening except as authorized pursuant to Appendix A of this Article. If any information submitted to the Agency becomes invalid or outdated, the Agency shall be immediately notified.
4. All persons who are associated with the operation of an x-ray system are subject to the occupational exposure limits specified in Article 4. Exposure of a personnel monitoring device to deceptively indicate a dose delivered to an individual is prohibited.

**B.** The registrant shall maintain the following records for each x-ray machine:
1. Maximum rating of technique factors.
2. Aluminum equivalent filtration of the useful beam, including any routine variation.
3. Tube rating charts and cooling curves.
4. Record of surveys, calibrations, maintenance, modifications (from the original schematics and drawings) performed on the x-ray machine or room after the effective date of these rules, along with the names of persons who performed the service.
5. A copy of all correspondence with the Agency regarding the x-ray machine facility.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-605. General Equipment Requirements**

**A.** The leakage radiation from the diagnostic source assembly measured at a distance of 1 meter in any direction from the source assembly shall not exceed 25.8 μC/kg (100 milliroentgens) in 1 hour when the x-ray tube is operated at its leakage technique factors. Compliance shall be determined by measurements averaged over an area of 100 square centimeters (15.5 square inches) with no linear dimension greater than 20 centimeters (7.9 inches).

**B.** The radiation emitted by a component other than the diagnostic source assembly shall not exceed 516 nC/kg (2 milliroentgens) in 1 hour at 5 centimeters from any accessible surface of the component when it is operated in an assembled x-ray system under any conditions for which it was designed. Compliance shall be determined by measurements averaged over an area of 100 square centimeters (15.5 square inches) with no linear dimension greater than 20 centimeters (7.9 inches).

**C.** Beam quality.

1. The useful beam half-value layer (HVL) for diagnostic x-ray given x-ray tube potential shall not be less than the values shown in Table I. If it is necessary to determine the half-value layer at an x-ray tube potential which is not listed in Table I, linear interpolation or extrapolation may be made.

**Table I**

| *Design operating range (kilovolts peak)* | *Measured potential (Kilovolts peak)* | *Half-value layer (Millimeters of aluminum)* |
|---|---|---|
| Below 51 | | 30 |
| 0.3 | | |
| | | 40 |
| 0.4 | | |
| | | 50 |
| 0.5 | | |
| 51 to 70 | 51 | 1.2 |
| | 60 | 1.3 |
| | 70 | 1.5 |
| Above 70 | 71 | 2.1 |
| | 80 | 2.3 |
| | 90 | 2.5 |
| | 100 | 2.7 |
| | 110 | 3.0 |
| | 120 | 3.2 |
| | 130 | 3.5 |
| | 140 | 3.8 |
| | | 150 |
| 4.1 | | |

2. The above HVL criteria will be considered to have been met if it can be demonstrated that the aluminum equivalent of the total filtration in the primary beam is not less than that shown in Table II.

**Table II - Filtration Required vs. Operating Voltage**

| *Operating Voltage (kVp)* | *Total Filtration (inherent plus added) (millimeters aluminum equivalent)* |
|---|---|
| Below 51 | 0.5 millimeters |
| 51 - 70 | 1.5 millimeters |
| Above 70 | 2.5 millimeters |

3. Beryllium window tubes shall have a minimum of 0.5 mm aluminum equivalent filtration permanently mounted in the useful beam.
4. For capacitor energy storage equipment, compliance shall be determined with the maximum quantity of charge per exposure.
5. The required minimal aluminum equivalent filtration shall include the filtration contributed by all materials which are always present between the focal spot of the tube and the patient (for example, a tabletop when the tube is mounted “under the table” and inherent filtration of the tube).

**D.** Multiple tubes. Where 2 or more radiographic tubes are controlled by 1 exposure switch, the tube or tubes which have been selected shall be clearly indicated prior to initiation of the exposure. This indication shall be both on the x-ray control

and at or near the tube housing assembly which has been selected.

**E.** Mechanical support of tube head. The tube housing assembly supports shall be adjusted such that the tube housing assembly will remain stable during an exposure unless the tube housing movement is a designed function of the x-ray system.

**F.** Exposure reproducibility. The coefficient of variation shall not exceed 0.10 when all technique factors are held constant. This requirement shall be deemed to have been met if the value of the average exposure (E) is greater than or equal to 5 times the difference between the maximum exposure (Emax) and minimum exposure (Emin) when 4 exposures are made at identical technique factors, [$E \geq 5(Emax - Emin)$].

**G.** Film processing equipment shall be utilized in accordance with the manufacturer's specifications and recommendations.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended subsections (A) and (B) effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-606. Fluoroscopic Systems**

**A.** Useful beam limitation

1. Beam-limiting devices shall be provided which restrict the entire cross-section of the useful beam to less than the area of the primary barrier at any Source-to-Image Receptor Distance (SID).
2. The x-ray field size produced by fluoroscopic systems without image intensification shall not extend beyond the visible area of the image receptor at any SID.
3. The x-ray field size produced by fluoroscopic systems with image intensification and automatic shutter control shall not exceed the diameter of the image receptor at any SID.
4. The x-ray field size produced by fluoroscopic systems with image intensification and manual shutter control shall not exceed the diameter of the image receptor with the fluoroscopic imaging assembly positioned at the maximum usable distance above the table top.
5. The x-ray field size produced by fluoroscopic systems with image intensification and manual shutter control, where the fluoroscopic tube is above the table top, shall not exceed the diameter of the image receptor with the shutters open to the fullest extent, and at the maximum "SID" which the fluoroscopic tube is capable of producing radiation.

**B.** Fluoroscopic primary barrier

1. The fluoroscopic imaging assembly shall be provided with a primary protective barrier which always intercepts the entire cross-section of the useful beam at any SID.
2. The fluoroscopic tube shall not be capable of producing radiation unless the primary barrier is in a position to intercept the entire cross-section of the useful beam.
3. Fluoroscopic radiation production shall automatically terminate when the primary barrier is removed from the useful beam.
4. The fluoroscopic primary barrier shall meet the following requirements for attenuation of the useful beam.
   a. For equipment installed before November 15, 1967, the required lead equivalent of the barrier shall not be less than 1.5 millimeters for up to 100 kVp, 1.8 millimeters for greater than 100 kVp and less than 125 kVp, and 2.0 millimeters for 125 kVp or greater. (For conventional fluoroscopes, these requirements may be assumed to have been met if the exposure rate measured at the viewing surface of the fluorescent screen does not exceed 12.9 μC/kg (50 milliroentgens) per hour with the screen in the primary beam of the fluoroscope without a patient, under normal operating conditions.) For equipment installed or reinstalled thereafter, the required lead equivalent of the barrier shall not be less than 2.0 millimeters for up to 125 kVp or shall not be less than 2.7 millimeters for 125 kVp or greater.
   b. For fluoroscopic systems utilizing image intensification, the exposure rate, due to transmission through the primary barrier, shall not exceed 516 nC/kg (2 milliroentgens) per hour at 10 centimeters (4 inches) from any accessible surface of the fluoroscopic imaging assembly beyond the plane of the image receptor for each 258 μC/kg (roentgen) per minute of entrance exposure rate.
   c. Compliance with subsection (B)(4)(a) and (b) shall be determined with the image receptor positioned 35.5 centimeters (14 inches) from the panel or table top, at normal operating technical factors and with the attenuation block in the useful beam for systems with image intensification.

**C.** Entrance exposure rate limits

1. The exposure rate measured at the point where the center of the useful beam enters the patient shall not exceed 2.6 μC/kg (10 roentgens) per minute at any combination of tube potential and current, except during recording of fluoroscopic images or when provided with optional high-level control.
2. When provided with optional high-level control, the equipment shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 2.6 μC/kg (10 roentgens) per minute at the point where the center of the useful beam enters the patient, unless the high-level control is activated, in which case 5.2 μC/kg (20 roentgens) shall not be exceeded.
   a. Special means of activation of high-level controls, such as additional pressure applied continuously by the operator, shall be required to avoid accidental use.
   b. A continuous signal audible to the fluoroscopist shall indicate that the high-level control is being employed.
3. Compliance with subsections (C)(1) and (2) shall be determined as follows:
   a. Movable grids and compression devices shall be removed from the useful beam during the measurement; and
   b. If the source is below the table, exposure rate shall be measured 1 centimeter above the table top or cradle; and
   c. If the source is above the table, the exposure rate shall be measured at 30 centimeters (11.8 inches) above the table top with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement; or
   d. In a mobile C-arm-type of fluoroscope, the exposure rate shall be measured at 30 centimeters (11.8 inches) from the input surface of the fluoroscopic imaging assembly;
   e. In a C-arm-type fluoroscope, the exposure rate shall be measured 30 centimeters (11.8 inches) from the input surface of the fluoroscope imaging assembly, with the x-ray source positioned at any available SID, provided that the end of the beam-limiting

device or spacer is not closer than 30 centimeters (11.8 inches) from the input surface of the fluoroscopic image assembly.

f. In a lateral-type fluoroscope, the exposure rate shall be measured at a point 15 centimeters (5.9 inches) from the centerline of the x-ray table and in the direction of the x-ray source with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement. If the tabletop is movable, it shall be positioned as closely as possible to the lateral x-ray source, with the end of the beam-limiting device or spacer no closer than 15 centimeters (5.9 inches) to the centerline of the x-ray table.

**D.** The source-to-skin distance shall not be less than:

1. 38 centimeters (15 inches) on stationary fluoroscopes installed after the effective date of this Section;
2. 35.5 centimeters (14 inches) on stationary fluoroscopes which are in operation prior to the effective date of this Section, January 2, 1996;
3. 30 centimeters (11.8 inches) on all mobile fluoroscopes; and
4. 20 centimeters (8 inches) for image-intensified fluoroscopes used for specific surgical application. The registrant shall follow any precautionary measures in the users operating manual.

**E.** Each fluoroscopic installation shall be subject to all of the following requirements for the control of stray radiation:

1. A shielding device of at least 0.25 millimeter lead equivalent shall be provided for covering the Bucky-slot during fluoroscopy;
2. Except for fluoroscopy performed using portable or mobile C-arm systems or during surgical procedures, protective drapes, or hinged or sliding panels of at least 0.25 millimeters lead equivalent, shall be provided between the patient and fluoroscopist to intercept scattered radiation which would otherwise reach the fluoroscopist and others near the machine, but drapes and panels shall not be substituted for a protective apron; and
3. Protective aprons of at least 0.25 millimeter lead equivalent shall be worn in the fluoroscopy room by each person, except the patient, whose body is likely to be exposed to 50 μSv/hr (5 mR/hr) or more.

**F.** Exposure control

1. Activation of the fluoroscopic tube shall be controlled by "deadman type" exposure switches.
2. A manual reset cumulative timing device, which is activated only during production of radiation in the fluoroscopic mode, shall be provided and shall indicate elapsed time by an audible signal or terminate production of radiation.
3. A device shall be provided for exposure control in the "spot film" mode which terminates exposure either automatically, or after a preset time interval, preset number of pulses, preset product of current and time, or preset exposure.
4. During fluoroscopy and cinefluorography, the x-ray tube potential and current shall be continuously indicated.

**G.** Systems utilized for mobile fluoroscopy shall be provided with image intensification.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-606 repealed, new Section R12-1-606 adopted effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-607. Diagnostic Radiographic Systems Other than Fluoroscopic or Dental Intraoral Systems**

**A.** Useful beam limitation

1. Means shall be provided to restrict the useful beam to the area of clinical interest for any combination of SID and image receptor size employed.
2 Beam-limiting devices shall meet the following appropriate requirements:
   a. Devices which project a circular radiation field shall restrict the diameter of the useful beam, not to exceed the diagonal dimension of the image receptor by greater than 2% of the SID;
   b. Devices which project a rectangular or square radiation field shall restrict the useful beam to the longitudinal and transverse dimensions of the image receptor to within 2% of the SID;
   c. Beam-limiting devices not incorporating light beams to define the projected radiation field shall be clearly labeled indicating the SID and image receptor size at which each such device complies with the applicable requirements of subsection (A)(2)(a) or (b);
   d. Adjustable beam-limiting devices installed after July 31, 1971, shall incorporate light beams to define the projected dimensions of the useful beam and shall provide an average illumination of not less than 100 lux (9 foot-candles) at 1 meter (3.3 feet) or at the maximum SID, whichever is less. The average illumination shall be based upon measurements made in the approximate center of each quadrant of the light field; and
   e. All beam-limiting devices installed, on general purpose fixed and mobile radiographic systems, shall provide stepless means of continuous adjustment of the projected radiation field size.
3. Means shall be provided to align the center of the radiation field to the center of the image receptor to within 2% of the SID.

**B.** Radiation exposure control

1. A means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, preset number of pulses, or a preset exposure to the image receptor. It shall not be possible to make an exposure when the exposure control device is set to a "zero" or "off" position if either position is provided.
2. The exposure switch shall meet the requirements of a "deadman type switch" and, except for those used in with "spot-film" devices in fluoroscopy, shall be so arranged that it cannot be conveniently operated outside a shielded area.
3. Systems provided with automatic exposure control shall indicate at the control panel when this mode is selected, and a visual and/or audible signal shall indicate termination of the exposure.
4. The control panel shall include:
   a. A device (usually a milliammeter) which will give positive indication during radiation production; and
   b. Indicators labeled control settings or meters indicating the appropriate technical factors: kVp, mA, exposure time, or mass, and special mode selected for the exposure.

**C.** Structural shielding

1. All wall, floor, and ceiling areas struck by the useful beam shall have primary barriers. Primary barriers in walls shall extend from the finished floor to a minimum height of 7 feet.

2. Secondary barriers shall be provided in all wall, floor, and ceiling areas not having primary barriers or where the primary barrier requirements are lower than the secondary barrier requirements.
3. The operator's station at the control shall be behind a protective barrier sufficient to assure compliance with R12-1-408, R12-1-414, and R12-1-416. Provision shall be made for the operator to communicate with the patient from the operator's station.
4. A window of transparent material equal in attenuation to that required by the adjacent barrier, or a mirror system, shall be provided and shall be large enough and so placed that the operator can see the patient during exposure without having to leave the protected area.

**D.** Operating procedures
1. When a patient must be held in position for radiography, mechanical supporting or restraining devices should be used. If the patient must be held by an individual, that individual shall be protected with appropriate shielding devices, such as protective gloves and apron, and shall be so positioned that no part of the body will be struck by the useful beam.
2. Only individuals required for the radiographic procedure shall be in the radiographic room during exposure, and, except for the patient, all such persons shall be equipped with appropriate protective devices.
3. The useful beam shall be restricted to the area of interest.
4. A chart shall be provided in the vicinity of the diagnostic x-ray system's control panel which specifies, for all routine examinations performed with the system, the following information:
   a. Patient's anatomical size versus technique factors to be utilized;
   b. Type and size of the film or film screen combination to be used;
   c. Type and focal distance of the grid to be used, if any;
   d. X-ray source-to-image receptor distance to be used; and
   e. Type and location of placement of gonad shielding to be used.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-607 repealed, new Section R12-1-607 adopted effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-608. Special Requirements for Mobile Diagnostic Radiographic Equipment, Except Dental Intraoral**

**A.** Equipment
1. All requirements of R12-1-607(A) and (B) apply.
2. A dead-man type of exposure switch shall be provided, together with an electrical cord of sufficient length so that the operator can stand out of the useful beam and at least 1.8 meters (6 feet) from the patient during all x-ray exposures.
3. A cone, spacer frame, or inherent provision shall be made so that the equipment is not operated at source-skin distances of less than 20.3 centimeters (8 inches).

**B.** Structural shielding. When a mobile unit is used routinely in 1 location, it shall be considered a fixed installation subject to the shielding requirements specified in R12-1-603(C) and R12-1-607(C).

**C.** Operating procedures
1. All provisions of R12-1-607(D) apply.
2. Personnel monitoring shall be required for all individuals operating mobile x-ray equipment.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended subsections (A) and (C) effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-609. Special Requirements for Chest Photofluorographic Systems**

**A.** Equipment
1. All provisions of R12-1-607(A) and (B) apply.
2. A collimator shall restrict the useful beam to the area of the photofluorographic screen.

**B.** Structural shielding. All provisions of R12-1-603(C) and R12-1-607(C) apply.

**C.** Operating procedures
1. All provisions of R12-1-607(D) apply.
2. All individuals except the patient being examined shall be in shielded positions during exposures.
3. Personnel monitoring shall be required for all individuals operating the equipment.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended subsections (A) and (C) effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-610. Dental Intraoral Radiographic Systems**

**A.** Equipment
1. The protective tube housing shall be of diagnostic type.
2. Diaphragms or cones shall be used for restricting the useful beam and shall provide the same degree of protection as the housing. The diameter of the useful beam at the end of the cone or spacer frame shall not be more than 7.6 centimeters (3 inches) for intraoral radiography.
3. A cone or spacer frame shall provide a source-to-skin distance of not less than 17.8 centimeters (7 inches) with apparatus operating above 50 kVp or 10 centimeters (4 inches) with apparatus operating at 50 kVp or below for intraoral radiography.
4. A timer shall be provided to terminate the exposure at a preset time interval, present product of current and time, and preset number of pulses, or a preset radiation exposure to the image receptor.
5. It shall not be possible to make an exposure when the timer is set to the "zero" or "off" position.
6. The tube head shall remain stationary when placed in exposure position.
7. The exposure initiating device shall meet the requirements of a "dead-man"-type switch.
8. The control panel shall include:
   a. A device (usually a milliammeter) which will give positive indication during radiation production; and
   b. Indicators labeled control settings or meters indicating the appropriate technical factors: kVp, mA, exposure time, or mass, and special mode selected for the exposure.

**B.** Structural shielding
1. Dental installations shall be provided with such primary barriers and/or secondary protective barriers as are necessary to assure compliance with Article 4 of this Chapter.
2. When dental x-ray units are installed in adjacent rooms or areas, protective barriers shall be provided between the rooms or areas.
3. Each installation shall be provided with a protective barrier for the operator or shall be so arranged that the opera-

tor can stand at least 1.82 meters (6 feet) from the patient and well away from the useful beam.

4. The operator's position shall be arranged to allow visual contact with the patient during exposure.
5. Structural shielding. When a mobile unit is used routinely in 1 location, it shall be considered a fixed installation.
   Note: In many cases structural materials of ordinary walls suffice as a protective barrier without addition of special shielding material.

**C.** Operating procedures

1. Neither the dentist nor the dentist's assistants shall hold patients or films during exposure, nor shall any individual be regularly used for this service. Only persons required for the radiographic procedure shall be in the radiographic room during exposures.
2. During each exposure, the operator shall stand at least 1.82 meters (6 feet) from the patient or behind a protective barrier.
3. Only the patient shall be in the useful beam.
4. Neither the tube housing nor the cone shall be hand-held during the exposure.
5. Fluoroscopy without image intensification shall not be used in dental examinations.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective August 8, 1986 (Supp. 86-4). Amended January 2, 1996 (Supp. 96-1). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-611. Therapeutic X-ray Systems of Less Than 1 MeV**

**A.** Equipment requirements

1. Leakage radiation
   a. Contact therapy systems. Leakage radiation shall not exceed 25.8 μC/kg (100 milliroentgens) per hour at 5 centimeters (2 inches) from the surface of the tube housing assembly.
   b. 0-150 kVp systems. Systems which are manufactured or installed prior to the effective date of this Section shall have a leakage radiation which does not exceed 258 nC/kg (1 roentgen) in 1 hour at 1 meter (3.3 feet) from the source.
   c. 0-150 kVp systems. Systems which are manufactured on or after the effective date of this Section shall have a leakage radiation which does not exceed 25.8 μC/kg (100 milliroentgens) in 1 hour at 1 meter from the source.
   d. 151-999 kVp systems. The leakage radiation shall not exceed 258 nC/kg (1 roentgen) in 1 hour at 1 meter (3.3 feet) from the source except systems that operate in excess of 500 kVp may have a leakage radiation at 1 meter from the source equivalent to the exposure within 1 hour of the useful beam at 1 meter (3.3 feet) from the source multiplied by a factor of 0.001.
2. Permanent beam limiting devices. Permanent fixed diaphragms or cones used for limiting the useful beam shall provide the same or higher degree of protection as required by the tube housing assembly.
3. Removable and adjustable beam-limiting devices
   a. Removable and adjustable beam-limiting devices shall, for the portion of the useful beam to be blocked by these devices, transmit not more than 1 percent of the original x-ray beam at the maximum kilovoltage and maximum treatment filter.
   b. Adjustable beam-limiting devices installed before the effective date of this Section shall, for the portion of the x-ray beam to be blocked by these devices, transmit not more than 5% of the useful x-ray beam at maximum kilovoltage and maximum treatment filter.
4. Filter system. The filter system shall be so designed that:
   a. Filters cannot be accidentally displaced from the useful beam at any possible tube orientation;
   b. Each filter is marked as to its material of construction and its thickness or wedge angle for wedge filters; and
   c. It shall be possible for the operator to determine the presence or absence of each filter and the orientation of each wedge filter in the useful beam when the operator is at the control panel, either by display at the control panel or by direct observation.
5. X-ray tube immobilization. The tube housing assembly shall be capable of being immobilized during stationary treatments.
6. Focal spot marking. The tube housing assembly shall be so marked that it is possible to determine the location of the focal spot to within 5 millimeters, and such marking shall be readily accessible for use during calibration procedures.
7. Therapy treatment timers shall meet the following requirements:
   a. A timer shall be provided which has a display at the treatment control panel. The timer shall be graduated in minutes and fractions of minutes. The timer shall have a preset time selector and an elapsed time indicator.
   b. The timer shall be a cumulative timer which activates with the radiation and retains its reading after irradiation is interrupted or terminated. After irradiation is terminated and before irradiation can be reinitiated, it shall be necessary to reset the preset time selector.
   c. The timer shall terminate irradiation when a preselected time has elapsed.
   d. The timer shall permit accurate presetting and determination of exposure times as short as 1 second.
   e. The timer shall not permit an exposure if set at 0.
   f. The timer shall not activate until the shutter is opened when irradiation is controlled by a shutter mechanism.
8. Control panel functions. The control panel, in addition to the displays required in other provisions of this Section, shall have:
   a. An indication of whether electrical power is available at the control panel and if activation of the x-ray tube is possible;
   b. An indication of whether x-rays are being produced;
   c. A means for indicating kVp and x-ray tube current;
   d. A means for terminating an exposure at any time;
   e. A locking device which will prevent unauthorized use of the x-ray system; and
   f. For x-ray equipment installed after the effective date of this Section, a positive display of specific filters in the beam.
9. Multiple tubes. When a control panel may energize more than 1 x-ray tube:
   a. It shall be possible to activate only 1 x-ray tube during any time interval;
   b. There shall be an indication at the control panel identifying which x-ray tube is energized; and
   c. There shall be an indication at the tube housing assembly when that tube is energized.

10. Source-to-patient distance. There shall be a means of determining the source-to-patient distance to within 1 centimeter.
11. Shutters. Unless it is possible to bring the x-ray output to the prescribed exposure parameters within 5 seconds, the entire useful beam shall be automatically attenuated by a shutter having a lead equivalency not less than that of the tube housing assembly. In addition:
    a. After the unit is at operating parameters, the shutter shall be controlled electrically by the operator from the control panel; and
    b. An indication of shutter position shall appear at the control panel.
12. Low filtration x-ray tubes. Each x-ray system equipped with a beryllium or other low-filtration window shall be clearly labeled as such on the tube housing assembly and at the control panel.

**B.** Facility design requirements. In addition to shielding necessary to meet the requirements of Article 4 of this Chapter, the treatment room shall meet all the following design requirements:
1. Warning lights. Treatment rooms to which access is possible through more than 1 entrance shall be provided with a warning light, in a readily observable position near the outside of all access doors, which will indicate when the useful beam is "on".
2. Voice communication. Provision shall be made for 2-way oral communication between the patient and the operator at the control panel; however, where excessive noise levels make oral communication impractical, other methods of communication shall be used.
3. Viewing systems. Windows, mirrors, or closed-circuit television, or an equivalent system, shall be provided to permit continuous observation of the patient during irradiation and shall be so located that the operator can observe the patient from the control panel. When the primary viewing system is by electronic means (for example, television), an alternate viewing system shall be available for use in the event of electronic failure.
4. Additional requirement. Treatment rooms which contain an x-ray system capable of operating above 150 kVp shall meet the following additional requirements:
    a. All necessary shielding, except for any beam interceptor, shall be provided by fixed barriers;
    b. The control panel shall be within a protective booth equipped with an interlocked door, or located outside the treatment rooms;
    c. All doors of the treatment room shall be electrically connected to the control panel such that x-ray production cannot occur unless all doors are closed; and
    d. Opening of any door of the treatment room during exposure shall result in automatic termination of x-ray production or reduction of radiation levels to an average of no more than 516 nC/kg (2 milliroentgens) per hour and a maximum of 2.6 μC/kg (10 milliroentgens) per hour at a distance of 1 meter (3.3 feet) from the target in any direction. After such shut-off or reduction, it shall be possible to restore the machine to full operation only from the control panel.

**C.** Surveys
1. All facilities, both new and existing, not previously surveyed, shall have a survey made prior to being put into service for the treatment of patients by, or under the direction of, a person trained and experienced in the principles of radiation protection. Additional surveys shall be made of a facility after any change in the facility or a facility's equipment which might cause a significant increase in radiation hazard, prior to being put into service for the treatment of patients.
2. The person conducting the survey shall report the person's findings in writing to the individual in charge of the facility and a copy of the report shall be maintained by the registrant for inspection by the Agency.
3. The installation shall be operated in compliance with any limitations indicated by the protection survey required by subsection (C)(1).

**D.** Calibrations
1. The calibration of the x-ray system shall include, but not be limited to, the following determinations:
    a. Verification that the x-ray system is operating in compliance with the design specifications;
    b. The dose rate equivalent for each combination of field size, technique factors, filter, and treatment distance used;
    c. The degree of congruence between the radiation field and the field indicated by the localizing device if such device is present; and
    d. An evaluation of the uniformity of the radiation field symmetry for the field sizes used and any dependence upon source housing assembly orientation.
2. The calibration of an x-ray system shall be performed at intervals not to exceed 12 months and after any change or replacement of components which could cause a change in the radiation output.
3. The calibration of the radiation output of the x-ray system shall be performed by, or under the direction of, a person trained and experienced in performing calibrations, who is physically present at the facility during such calibration.
4. Calibration of the radiation output of an x-ray system shall be performed with a calibrated instrument. The calibration of such instrument shall be directly traceable to the National Institute of Standards and Technology (NIST) and shall have been calibrated within the preceding 24 months.
5. Records of calibration performed pursuant to subsection (D)(3) shall be maintained by the registrant for at least 2 years after completion of the calibration and shall be made available for inspection by the Agency.
6. A copy of the most recent calibration shall be available for use by the operator at the control panel.

**E.** Spot checks. Spot checks shall be performed on x-ray systems capable of operation at greater than 150 kVp. Such spot checks shall meet the following requirements:
1. The spot-check procedures shall be in writing and shall have been developed by a qualified person;
2. The measurements taken during the spot checks shall demonstrate the degree of consistency of the operating characteristics which can affect the radiation output of the x-ray system;
3. The written spot-check procedure shall specify the frequency at which such tests or measurements are to be made at intervals not to exceed monthly;
4. The spot-check procedure shall note conditions which shall require recalibration of the system in accordance with subsection (D)(1); and
5 Records of spot-check measurements performed as required by subsection (E)(3) shall be maintained, available for inspection by the Agency, for 3 years following such measurements.

**F.** Operating procedures.

1. Therapeutic x-ray systems shall not be left unattended unless the system is secured in accordance with subsection (A)(8)(e).
2. When a patient must be held in position for radiation therapy, mechanical supporting or restraining devices shall be used.
3. The tube housing assembly shall not be held by an individual during exposures.
4. No individual other than the patient shall be in the treatment room during production of radiation unless such individual is protected by a barrier sufficient to meet the requirements of Article 4 of this Chapter. No individual other than the patient shall be in the treatment room while radiation is being produced when the kVp exceeds 150.

**Historical Note**

Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-611 repealed, new Section R12-1-611 adopted effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-612. X-ray and Electron Therapy Systems with Energies of 1 MeV and Above**

**A.** Equipment

1. Leakage radiation
   a. X-ray leakage radiation from the source housing assembly shall not exceed 0.1% of the maximum dose equivalent rate of the unattenuated useful beam.
   b. Neutron leakage radiation from the source housing assembly shall not exceed 0.5% of the maximum dose equivalent rate of the unattenuated useful beam.
   c. Leakage radiation measurements made at any point 1 meter from the path of the charged particle between its point of origin and the target, window or scattering foil shall meet the requirements of subsections (A)(1)(a) and (b) when computed as a percentage of the dose rate equivalent of the unattenuated useful beam measured at 1 meter from the virtual source. Leakage radiation measurements at each point shall be averaged over an area up to but not exceeding 100 square centimeters (15.5 square inches).
   d. The registrant shall maintain, for inspection by the Agency, records which show leakage radiation measurements for the life of the operation.
2. Beam-limiting devices. Adjustable or interchangeable beam-limiting devices shall be provided and such devices shall transmit no more than 2% of the useful beam for the portion of the useful beam which is to be attenuated by the beam-limiting device. The neutron component of the useful beam shall not be included in this requirement. Measurements shall be averaged over an area up to but not exceeding 100 square centimeters (15.5 square inches) at the normal treatment distance.
3. Filters. The following requirements shall apply to systems which utilize a system of wedge filters, interchangeable field flattening filters, or interchangeable beam-scattering filters:
   a. Irradiation shall not be possible until a selection of a filter has been made at the treatment control panel;
   b. An interlock system shall be provided to prevent irradiation if the filter selected is not in the correct position;
   c. An indication of the wedge filter orientation with respect to the treatment field shall be provided at the control panel, by direct observation or by electronic means, when wedge filters are used;
   d. A display shall be provided at the treatment control panel showing the filter or filters in use;
   e. Each filter which is removable from the system shall be clearly identified as to that filter's material of construction, thickness, and the wedge angle for wedge filters; and
   f. An interlock shall be provided to prevent irradiation if any filter selection operation carried out in the treatment room does not agree with the filter selection operation carried out at the treatment control panel.
4. Beam monitor. Equipment installed after the effective date of this Section shall be provided with at least 1 radiation detector in the radiation head. This detector shall be incorporated into a primary system in such a manner that all of the following criteria are met:
   a. Each primary system shall have a detector which is a transmission detector and a full-beam detector that shall be located on the patient side of any fixed added filters other than a wedge filter;
   b. The detectors shall be removable only with tools and shall be interlocked to prevent incorrect positioning;
   c. Each detector shall be capable of monitoring and controlling the useful beam independently;
   d. Each detector shall form part of a dose-monitoring system from which the absorbed dose can be calculated at a reference point in the treatment volume;
   e. Each dose-monitoring system shall have a legible display at the treatment control panel that:
      i. Maintains a reading until intentionally reset to 0;
      ii. Has only 1 scale and no scale multiplying factors in replacement equipment; and
      iii. Utilizes a design such that increasing dose is displayed by increasing numbers and shall be so designed that, in the event of an overdose of radiation, the absorbed dose may be accurately determined under all nominal conditions of use or foreseeable failures;
   f. In the event of power failure, the dose-monitoring information required in subsection (A)(4) displayed at the control panel at the time of failure shall be retrievable in at least 1 system; and
   g. Selection and display of dose monitor units
      i. Irradiation shall not be possible until a selection of dose-monitor units has been made at the treatment control panel.
      ii. Each primary system shall terminate irradiation when the preselected number of dose-monitor units has been detected by the system.
      iii. Each secondary system shall terminate irradiation when 102% of the preselected number of dose-monitor units has been detected by the system.
      iv. It shall be possible to interrupt irradiation and equipment movements with an interruption switch at any time from the operator's position at the treatment control panel. Following an interruption, it shall be possible to restart irradiation by operator action without any reselection of operating conditions. If any change is made of a preselected value during an interruption, the equipment shall go to termination condition.

v. It shall be possible to terminate irradiation and equipment movements with a termination switch, or go from an interruption condition to termination conditions at any time from the operator's position at the treatment control panel.

5. Timer. A timer shall be provided and shall meet all of the following requirements:
   a. The timer shall have a display at the treatment control panel and shall have a preset time selector and elapsed time indicator.
   b. The timer shall be a cumulative timer which switches on and off with the radiation and retains its reading after irradiation is interrupted or terminated. It shall be necessary to zero and subsequently reset the elapsed time indicator and the preset time selector after irradiation is terminated before further irradiation is possible.
   c. The timer shall terminate irradiation when a preselected time has elapsed if the dose-monitoring systems fail to do so.
6. Treatment beam mode selection. In equipment capable of both x-ray and electron therapy:
   a. Irradiation shall not be possible until a selection of radiation type has been made at the treatment control panel.
   b. An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment room do not agree with the selected operations carried out at the treatment control panel.
   c. An interlock system shall be provided to prevent x-ray irradiation when electron applicators are fitted and irradiation with electrons when accessories specific for x-ray therapy are fitted.
   d. The radiation type selected shall be displayed at the treatment control panel before and during irradiation.
7. Treatment beam energy selection. Equipment capable of generating radiation beams of different energies shall meet all of the following requirements:
   a. Irradiation shall not be possible until a selection of energy has been made at the treatment control panel,
   b. An interlock system shall be provided to insure that the equipment can emit only the energy of radiation which has been selected,
   c. An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment room do not agree with the selected operations carried out at the treatment control panel, and
   d. The energy selected shall be displayed at the treatment control panel before and during irradiation.
8. Selection of stationary or moving beam therapy. Equipment capable of both stationary and moving-beam therapy modes shall meet all of the following requirements:
   a. Irradiation shall not be possible until a selection of stationary-beam therapy or moving-beam therapy has been made at the treatment control panel;
   b. An interlock system shall be provided to insure that the equipment can operate only in the mode which has been selected;
   c. An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment room do not agree with the selected operations carried out at the treatment control panel;
   d. An interlock system shall be provided to terminate irradiation if the beam movement stops during moving-beam therapy;
   e. Moving-beam therapy shall be so controlled that the required relationship between the number of dose-monitor units and movement is obtained; and
   f. The mode of operation shall be displayed at the treatment control panel.
9. Focal-spot location and beam orientation. In reference to an accessible point on the radiation head, the registrant shall determine or obtain from the manufacturer all of the following:
   a. The x-ray target or the virtual source of x-rays,
   b. The electron window or the scattering foil, and
   c. All possible orientations of the useful beam.
10. System checking facilities. Capabilities shall be provided for checking of all safety interlock systems.

**B.** Facility and shielding requirements.
1. In addition to protective barriers sufficient to ensure compliance with Article 4 of this Chapter, all of the following design requirements shall apply:
   a. Except for entrance doors or beam interceptors, all the required barriers shall be fixed barriers;
   b. The treatment control panel shall be located outside the treatment room;
   c. Windows, mirrors, operable closed-circuit television, or other equivalent viewing systems shall be provided to permit continuous observation of the patient during irradiation and shall be so located that the operator may observe the patient from the treatment control panel;
   d. Provision shall be made for 2-way oral communication between the patient and the operator at the treatment control panel;
   e. Each point of entry into the treatment room shall be provided with warning lights which will indicate when the useful beam is "on" in a readily observable position outside of the room; and
   f. Interlocks shall be provided such that all entrance doors shall be closed before treatment can be initiated or continued. If the radiation beam is interrupted by any door opening, it shall be possible to restore the machine to operation only by closing the door and reinitiating exposure by manual action at the control panel.
2. A qualified expert trained and experienced in the principles of radiation protection shall perform a radiation protection survey on all installations prior to human use and after any change in an installation that might produce a radiation hazard. The person shall provide the survey results in writing to the individual in charge of the installation and transmit a copy of the survey results to the Agency.
3. Calibrations.
   a. Calibration of the therapy system, including radiation output calibration, shall be performed prior to placing new installations into operation for the purpose of irradiation of patients, at intervals not to exceed 12 months, and after any change which may cause the calibration of the therapy system to change.
   b. Calibration of the radiation output of the therapy beam shall be performed with an instrument which has been calibrated directly traceable to the NIST within the preceding 24 months.

c. Calibrations of a particle accelerator shall be made by, or under the direct supervision of, a person having met the qualification requirements specified in R12-1-904(F), and a copy of the calibration report shall be maintained by the registrant for inspection by the Agency.
d. Calibration of the therapy beam shall include, but not necessarily be limited to, all of the following determinations:
i. Verification that the equipment is operating within the design specifications concerning the light localizer, the side light and back pointer alignment with the isocenter, when applicable, variation in the axis of rotation for the table, gantry, and jaw system, and beam flatness and symmetry at specific depths;
ii. The exposure rate or dose rate in air and at various depths of water for the range of field sizes used for each effective energy, and for each treatment distance used for radiation therapy;
iii. The congruence between the radiation field and the field defined by the localizing device;
iv. The uniformity of the radiation field and its dependency upon the direction of the useful beam; and
v. The calibration determinations above shall be provided in sufficient detail such that the absorbed dose to tissue in the useful beam may be calculated to within +/- 5%.
e. Records of calibrations shall be maintained for 3 years following the date the calibration was performed.
f. A copy of the current calibration report shall be available in the therapy facility for use by the operator, and the report shall contain the following information:
i. The action taken by the person performing the calibration if it indicates a change has occurred since the last calibration;
ii. A listing of the persons informed of the change in calibration results; and
iii. A statement as to the effect the change in calibration has had on the therapy doses prior to the current calibration finding.

**C.** Spot checks.
1. The spot-check procedures shall be in writing and shall have been developed by a person trained and experienced in performing calibrations.
2. The measurements taken during spot checks shall demonstrate the degree of consistency of the operating characteristics which can affect the radiation output of the system or the radiation dose delivered to a patient during a therapy procedure.
3. The written spot-check procedure shall indicate the frequency at which tests or measurements are to be performed, not to exceed monthly.
4. The spot-check procedure shall note conditions which shall require recalibration of the therapy system prior to further human irradiation.
5. Records of spot checks shall be maintained available for inspection by the Agency for 3 years following such measurements.

**D.** Operating procedures
1. Only the patient shall be in the treatment room during irradiation.
2. If a patient must be held in position during treatment only, mechanical supporting or restraining devices shall be used for this purpose.
3. The therapy system shall not be used for human irradiation unless the requirements of R12-1- 611(B)(2) and (3) are met.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-612 repealed, new Section R12-1-612 adopted effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1). Amended by final rulemaking at 5 A.A.R.1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-613. Veterinary Medicine Radiographic Systems**

**A.** Equipment
1. Prior to the effective date of these rules, the total filtration permanently in the useful beam shall not be less than 1.5 millimeters aluminum-equivalent for equipment operating up to 70 kVp and 2.0 millimeters aluminum-equivalent for machines operating in excess of 70 kVp.
2. A device shall be provided to terminate the exposure after a preset time or exposure.
3. A dead-man type of exposure switch shall be provided, together with an electrical cord of sufficient length, so that the operator can stand out of the useful beam and at least 6 feet from the animal during all x-ray exposures.

**B.** Appropriate shielding shall be employed such as protective gloves and apron, and the animal positioned so that no part of the occupationally exposed person's body will be struck by the useful beam. Persons exposed to ionizing radiation for this purpose shall be monitored.

**C.** Operating procedures
1. The operator shall stand well away from the tube housing and the animal during radiographic exposures. Provisions shall be made so that the operator will not be required to stand in the useful beam. Hand-held fluoroscopic screens shall not be used. The tube housing shall not be held by the operator. No individual other than the operator shall be in the x-ray room while exposures are being made unless such individual's assistance is required.
2. In any application in which the operator or other assisting individual is not located behind a protective barrier, clothing consisting of a protective apron and gloves having a lead-equivalent of not less than 0.5 millimeters shall be worn by the operator and any other individual in the room during exposures.
3. No individual shall be regularly employed to hold or support animals or hold film during radiation exposures. Occupationally exposed individuals shall not perform this service except in cases in which no other method is available and that person shall be provided with a personnel monitoring device.
4. If an individual must support an animal or a film during an x-ray exposure, the name of the individual holding the animal shall be recorded in an x-ray log containing the animal's name, the type of examination, and the date the examination was performed.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended subsection (B) effective August 8, 1986 (Supp. 86-4). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-614. Mammographic Systems**

**A.** Equipment

1. Only radiation machines specifically designed for mammography examinations shall be used.
2. The film processor used in the registrant's facility shall be maintained in accordance with the film processor's and film manufacturer's recommendations.
3. Each facility shall have an image development system on site unless the Agency has approved an alternate system.
4. When used with screen-film image receptors, and the contribution to filtration made by the compression device is included, the useful beam shall have a half-value layer between the values of: "measured kVp/100 and measured kVp/100 + 0.1 millimeters" of aluminum equivalent.
5. The combination of focal spot size, source-to-image distance, and magnification shall produce a radiograph with a resolution of at least 12 line pairs per millimeter at an object-to-image receptor distance of 5 centimeters; or the standards in Table 3-3 of the American Associates of Physicists in Medicine, Report No. 29, August 1990 edition, published by the American Institute of Physics, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, are followed.
6. The compression device used with the mammographic unit shall be parallel to the imaging plane to adequately immobilize and compress the breast.
7. The mammographic x-ray system shall be capable of:
   a. For automatic pressure units only, compressing the breast with a force of at least 25 pounds, and not more than 40 pounds, and maintaining the compression for at least 3 seconds; and
   b. The chest wall edge of the compression paddle shall be aligned just beyond the chest wall edge of the image receptor such that the chest wall edge of the compression paddle does not appear in the mammogram.
8. A mammographic x-ray system utilizing screen-film image receptors shall have:
   a. The capability of using anti-scatter grids which are specifically designed for mammography, integral to the x-ray system, and are available for all image receptor sizes; and
   b. The capability of automatic exposure control.
9. All mammographic x-ray systems shall indicate, or provide the means of determining, the mAs resulting from each exposure made with automatic exposure control.
10. Collimation shall be provided which shall limit the useful beam such that the x-ray field at the plane of the image receptor does not extend beyond any edge of the image receptor at any designated source-to-image receptor distance except the edge of the image receptor designed to be adjacent to the chest wall where the x-ray field may not extend beyond this edge by more than 2% of the source-to-image receptor distance.
11. The accuracy of the indicated kVp shall be within ± 2kVp.
12. Mammographic x-ray systems operating with automatic exposure control shall be capable of maintaining a constant film density to within ± 0.30 optical density units over the range of clinically used kVps, for breast equivalent phantom thicknesses of 2 centimeters to 6 centimeters or, if the film density cannot be maintained to within ± 0.30 of the average of clinically used kVp settings and phantom thickness from 2 to 6 centimeters by the automatic exposure control, a technique chart shall be developed that alters kVp and density control settings as a function of breast thickness and density which maintains the film density within ± 0.30 optical density.
13. At a kVp of 28, the mammographic x-ray system shall be capable of generating at least 2.0 μC/kg/mAs (8 mR/mAs) and at least 200 μC/kg/second (800 mR/second), measured at a point 4.5 centimeters above the surface of the patient support device when the source-to-image receptor distance is at its maximum.
14. Cassettes shall not be used for mammography if 1 or more areas of greater than 1 square centimeter or 2 or more areas of less than 1 square centimeter of poor screen-film contact are seen when tested using a 40 mesh screen test.
15. Mammography image quality acceptable to operate a mammographic x-ray system shall:
   a. Meet the minimum phantom performance standards in "Mammography Quality Control", 1992 edition, published by the American College of Radiology, incorporated by reference and on file with the Agency and the Office of the Secretary of State, containing no future editions or amendments; for accreditation on the standard mammography film in use at the facility; or
   b. Shall be of a quality to observe the image of a 0.75 millimeter fiber, 0.32 millimeter speck, and a 0.75 millimeter mass from an image made utilizing a Radiation Measurements Inc. (RMI) Model 156 or equivalent.
16. The mean glandular dose for 1 craniocaudal view of a 4.2 centimeter (1.8 inch) compressed breast, composed of 50% adipose/50% glandular tissue, shall not exceed 300 millirads (3 milligray) for screen-film image receptor.
17. Mammography units shall be calibrated when equipment is 1st installed, after any major changes or replacement of parts and at least annually and when quality assurance tests indicate calibration is needed.

**B.** Operating Procedures

1. Each facility shall have a quality assurance testing program for the items listed in Appendix B. The procedures shall describe each test, the acceptable results, and corrective actions when required. Records of the quality assurance testing program shall be maintained for Agency inspection.
2. Each facility shall have a radiologic physicist as defined in R12-1-615 review all the test results for those tests specified in subsection (A)(2) above. The radiologic physicist shall make recommendations as necessary for the facility to comply with these rules.

**Historical Note**

Adopted effective January 2, 1996 (Supp. 96-1).
Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-615. Radiologic Physicist Training**

The radiologic physicist utilized to provide the services required by R12-1-614(B)(2) shall:

1. Be certified by the American Board of Radiology or the American Board of Medical Physicists in:
   a. Diagnostic Radiological Physics, or
   b. Radiological Physics; or
2. Hold a Master's or Doctor's degree in physics, biophysics, radiological physics, health physics, or be certified by the American Board of Health Physics and have completed 1 year of full-time training in diagnostic radiological physics and 2 years of full-time work experience under the supervision of a diagnostic x-ray physicist who is consulting with a mammography facility.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**Appendix A. Information to be Submitted by Persons Proposing to Conduct Healing Arts Screening Other Than Mammography**

Persons requesting that the Agency approve a healing arts screening program shall submit the following information and evaluation:

1. Name and address of the applicant and, where applicable, the names and addresses of agents within this state;
2. Disease or conditions for which the x-ray examinations are to be used in diagnoses;
3. A detailed description of the x-ray examinations to be used in diagnoses;
4. Description of the population to be examined in the screening program, that is, age, sex, physical condition, and other appropriate information;
5. An evaluation of any known alternate methods not involving ionizing radiation which could achieve the goals for the screening program and why these methods are not used instead of the x-ray examinations;
6. An evaluation by a qualified expert of the x-ray system or systems to be used in the screening program. The evaluation by the qualified expert shall show that such system does or systems do satisfy all requirements of these rules;
7. A description of the diagnostic film quality control program;
8. A copy of the technique chart for the x-ray examination procedures to be used;
9. The qualifications of each individual who will be operating the x-ray system or systems;
10. The qualifications of the individual who will be supervising the operators of the x-ray system or systems;
11. The name and address of the individual who will interpret the radiograph or radiographs;
12. A description of the procedures to be used in advising the individuals screened and their private practitioners of the healing arts, of the results of the screening procedure, and any further medical needs indicated;
13. A description of the procedures for the retention or disposition of the radiographs and other records pertaining to the x-ray examinations.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**Appendix B. Procedures and Tests for Mammography Systems**

I. Procedures
   a. Description of the x-ray examinations to be performed,
   b. Description of the use of grids,
   c. Description of the use of compression devices,
   d. Description of any tests to be performed by the operator prior to the initial examinations,
   e. Description of patient acceptance criteria (for self-referral screen only),
   f. Description of image development procedures.

II. Quality Control
   a. Daily tests on the film processor using sentitometry and densitometry procedures;
   b. Monthly tests:
      1. Availability of technique charts,
      2. Image quality with a phantom;
   c. Quarterly test: Retake analysis;
   d. Annual tests:
      1. Exposure timer accuracy;
      2. Linearity of the mA stations;
      3. Skin entrance exposure;
      4. Exposure timer reproducibility;
      5. Half Value Layer;
      6. AEC, kVp, and thickness response;
      7. AEC reproducibility;
      8. Beam alignment, where appropriate;
      9. Average glandular dose.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

## ARTICLE 7. USE OF RADIONUCLIDES IN THE HEALING ARTS

**R12-1-701. Scope**

This Article establishes requirements for the use of radionuclides in the healing arts and for issuance of licenses authorizing the medical use of radionuclides. These requirements provide for the protection of the public health and safety, and are in addition to, and not in substitution for, other requirements in this Chapter.

**Historical Note**
Former Rule Section G.1. Former Section R12-1-701 repealed, new Section R12-1-701 adopted effective June 30, 1977 (Supp. 77-3). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-702. Definitions**

"Authorized user" means a physician licensed in Arizona to practice medicine and who is identified as:

1. An authorized user on an Agency, Nuclear Regulatory Commission (NRC), or Agreement State license that authorizes the specified medical use; or
2. A user in a medical use broad scope program, licensed by the Agency, NRC or Agreement State to select its own authorized users in accordance with the training standards contained in this Article.

"Brachytherapy" means a method of radiation therapy in which a sealed source or group of sealed sources is utilized to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary, intraluminal, or interstitial application.

"High dose rate afterloading brachytherapy" means the treating of human disease using the radiation from a radioactive sealed source containing more than 1 curie of radioactive material. The radioactive material is introduced into a patient's body using a device that allows the therapist to indirectly handle the radiation source during the treatment. For purposes of the requirements in this Article "pulse dose rate afterloading brachytherapy" is included in this definition.

"Medical institution" means an organization in which several medical disciplines are practiced.

"Medical use" means the intentional internal or external administration of radioactive material, or the radiation from it, to an individual under the supervision of an authorized user.

"Misadministration" means:

1. The administration of a radiopharmaceutical or the radiation from a sealed source, administered for therapy purposes and involving:
   a. The wrong radiopharmaceutical or sealed source; or
   b. The wrong patient; or
   c. The wrong route of administration; or
   d. A dose to an individual that differs from the prescribed dose by 20%; or
2. The administration of a diagnostic dose of a radiopharmaceutical involving:
   a. The wrong patient; or
   b. The wrong radiopharmaceutical; or
   c. The wrong route of administration; or

d. A dose to an individual that exceeds 5 rems effective dose equivalent or 50 rems dose equivalent to any individual organ; or

3. A therapeutic radiation dose from a sealed source such that errors in the source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose differing from the final, prescribed total treatment dose by more than 10 percent.

"Radiopharmaceutical" means any drug that exhibits spontaneous disintegration of unstable nuclei with the emission of nuclear particles or photons and includes any nonradioactive reagent kit or nuclide generator that is intended to be used in the preparation of any such substance.

"Remote afterloading brachytherapy device" means a device used in radiation therapy that allows the authorized user to insert, from a remote location, a radiation source into an applicator that has been previously inserted in an individual requiring treatment.

"Stereotactic radiosurgery" means the use of external radiation in conjunction with a stereotactic guidance device to very precisely deliver a dose.

"Teletherapy" means therapeutic irradiation in which the sealed source of radiation is at a distance from the body.

"Written directive" means an order in writing for a specific individual, or a diagnostic standing procedure for a group of patients written by an authorized user and on file with the licensee. The order or standing procedure shall be dated and signed by an authorized user prior to the administration of a radiopharmaceutical or radiation.

**Historical Note**

Former Rule Section G.2; Former Section R12-1-702 repealed, new Section R12-1-702 adopted effective June 30, 1977 (Supp. 77-3). Former Section R121-702 renumbered and amended as Section R12-1-703, new Section R12-1-702 adopted effective December 20, 1985 (Supp. 85-6). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-703. License for Medical Use of Radioactive Material**

**A.** In addition to the requirements set forth in R12-1-309, the Agency shall issue a specific license for medical use of radioactive material in medical institutions, which will be issued if:

1. The applicant has appointed a radiation safety committee, meeting the requirements in R12-1-706, that will oversee the use of licensed material throughout the medical institution and review the medical institution's radiation safety program;
2. The applicant possesses facilities for the clinical care of patients;
3. Any physician designated on the application as an authorized user has substantial training and experience in the handling and administration of radioactive material and, where applicable, the clinical management of radioactive patients; and
4. If the application is for a license to use unspecified quantities or multiple types of radioactive material, the applicant's staff has substantial experience in the use of a variety of radioactive materials for a variety of medical purposes.

**B.** Specific licenses to individual physicians for medical use of radioactive material:

1. The Agency shall approve an application by an individual physician or group of physicians for a specific license governing the medical use of radioactive material if:
   a. The applicant satisfies the general requirements in R12-1-309;
   b. The application is for use in the applicant's practice at an office outside of a medical institution;
   c. The applicant has access to a medical institution with adequate facilities to hospitalize and monitor the applicant's radioactive patients whenever it is advisable; and
   d. The applicant has substantial experience in the handling and administration of radionuclides, and where applicable, the clinical management of radioactive patients.
2. The Agency shall not approve an application by an individual physician or group of physicians for a specific license to receive, possess, or use radioactive material on the premises of a medical institution unless:
   a. The use of radioactive material is limited to:
      i. The administration of radiopharmaceuticals for diagnostic or therapeutic purposes;
      ii. The performance of diagnostic studies on patients to whom a radiopharmaceutical has been administered;
      iii. The performance of in vitro diagnostic studies; or
      iv. The calibration and quality control checks of radioactive assay instrumentation, radiation safety instrumentation, or diagnostic instrumentation;
   b. The physician brings the radioactive material and removes the radioactive material upon departure; and
   c. The medical institution does not hold a radioactive materials license under subsection (A).

**C.** Specific licenses for certain groups of medical uses of radioactive material

1. Subject to the provisions of subsections (C)(2), (3), and (4), the Agency shall approve an application for a specific license under subsections (A) or (B), for any medical use or uses of radioactive material specified in 1 or more of Groups I to V, inclusive, in Exhibit A of this Article for all of the materials within the group or groups in the application if:
   a. The applicant satisfies the requirements of subsections (A), (B), and (D);
   b. The applicant, or any physician designated in the application as an individual user meets the qualifications in R12-1-704;
   c. All other personnel who will be involved in the preparation and use of the radioactive material have adequate training and experience in the handling of radioactive material appropriate to their participation in the uses included in the group or groups;
   d. The applicant's radiation detection and measuring instrumentation is adequate for conducting the procedures involved in the uses included in the group or groups;
   e. The applicant's radiation safety operating procedures are adequate for handling and disposal of the radioactive material involved in the uses included in the group or groups.
2. Any licensee or registrant who is authorized to use radioactive material according to 1 or more groups in subsection (C) (1), and Exhibit A of this Article is subject to the following conditions:
   a. For Groups I, II, IV and V, a licensee or registrant shall not receive, possess, or use radioactive material as a radiopharmaceutical unless manufactured in the form to be administered to the patient, labeled, pack-

aged, and distributed according to a specific license issued by the Agency under R12-1-311(J), a specific license issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.72, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of Secretary of State (this incorporation by reference contains no future editions or amendments), or a specific license issued by an Agreement State or a Licensing State under equivalent rules.

b. For Group III, a licensee or registrant shall not receive, possess, or use generators or reagent kits that contain radioactive material to prepare radiopharmaceuticals containing radioactive material, except:
   i. Reagent kits that do not contain radioactive material, approved by the Agency, the U.S. Nuclear Regulatory Commission, or an Agreement State or Licensing State for use by persons licensed under subsection (C) and Exhibit A of this Article or equivalent regulations; or
   ii. Generators or reagent kits that contain radioactive material which are manufactured, labeled, packaged, and distributed according to a specific license issued by the Agency under R12-1-311(K).

c. For Group III, any licensee who uses generators or reagent kits shall:
   i. Elute the generator according to instructions furnished by the manufacturer or located on the generator label, leaflet, or brochure which accompanies the generator or reagent kit;
   ii Before administration to patients, or distribution to authorized recipients for administration to patients, cause each elution or extraction of technetium-99m from a molybdenum-99/technetium-99m generator to be tested to determine either the total molybdenum-99 activity or the concentration of molybdenum-99, according to written procedures and by personnel who have been specifically trained to perform the test;
   iii. Prohibit the administration or distribution for administration of technetium-99m that, at the expiration date and time shown on the container label, contains more than 5.6 kBq (0.15 microcuries) of molybdenum-99 per 37 MBq (1 millicurie) of technetium-99m. The licensee shall determine an action level for molybdenum-99/technetium-99m at elution so that the above concentration is not exceeded by radiopharmaceutical expiration. For example, the maximum concentration is 2.6 kBq (0.07 microcurie) per 37 MBq (1 millicurie) at elution for a dose that expires 6 hours later. The licensee shall ensure that the limits above are not exceeded for any single patient dose by checking the expiration time on the container label. The results of each test performed to detect and quantify molybdenum-99 contamination and records of training given to personnel performing these tests shall be maintained for 3 years for Agency inspection; and

d. For Groups I, II, and III, any licensee using radioactive material for clinical procedures other than those specified in the product labeling or package insert shall do so according to an authorized user's directive. Any deviation from the product labeling shall be recorded. Records shall be maintained for Agency review for 3 years from the date of the administration of the radiopharmaceutical.

3. Any licensee who is licensed according to subsection (C)(1), for 1 or more of the medical use groups in Exhibit A also is authorized to use radioactive material under the general license in R12-1-306(F) for the specified in vitro uses without filing Form ARRA-9 as required by R12-1-306(F)(2); provided, that the licensee is subject to the other provisions of R12-1-306(F).
4. Any licensee who is licensed according to this Section is authorized to receive, possess, and use calibration and reference radioactive sealed sources in accordance with R12-1-711.

**D.** In addition to the requirements set forth in R12-1-309, the Agency shall issue a specific license for medical use of sealed sources only if the applicant or, if the application is made by a medical institution, the individual user has the qualifications listed in R12-1-704.

**Historical Note**

Former Rule Section G.3; Former Section R12-1-703 repealed, new Section R12-1-703 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-703 renumbered and amended as Section R12-1-704, former Section R12-1-702 renumbered and amended as Section R12-1-703 effective December 20, 1985 (Supp. 85-6). Section repealed and new Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-704. Supervision**

**A.** For purposes of this rule "supervision" means the exercise of control over or direction of the use of radioactive material in the practice of medicine by an authorized user named on a radioactive material license. Supervision does not require a supervising physician's constant physical presence if the supervising physician can be easily contacted by radio, telephone, or telecommunication.

**B.** A physician may use radioactive material if he or she is licensed by the Arizona Board of Medical Examiners or Board of Osteopathic Examiners in Medicine and Surgery and is listed as an authorized user on a radioactive material license issued by the Agency, NRC, or Agreement State, authorizing the use of radioactive material for medical purposes.

**C**. A physician, having the training and experience listed in 10 CFR 35, 1998 Edition, published January 1, 1998, which is incorporated by reference and on file with the Agency and the Office of Secretary of State, or a physician under the supervision of a physician having the qualifications listed above, may use radioactive material for medical purposes. This incorporation by reference contains no future editions or amendments.

**D.** An authorized user, approved to prescribe radiopharmaceuticals for therapy purposes on a radioactive materials license, shall be physically present when a radiopharmaceutical is administered to a human being for therapeutic purposes.

**Historical Note**

Repealed effective June 30, 1977 (Supp. 77-3). Former Section R12-1-703 renumbered and amended as Section R12-1-704 effective December 20, 1985 (Supp. 85-6). Section repealed and new Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-705. Radiation Safety Officer**

A licensee shall appoint a Radiation Safety Officer who is responsible for implementing the radiation safety program. The licensee, through the Radiation Safety Officer, shall ensure that radiation safety activities are being performed according to this Chapter and Agency approved procedures.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-706. Radiation Safety Committee**
A medical institution Radiation Safety Committee shall meet the following requirements:

1. Administrative requirements:
   a. Committee membership shall consist of at least 3 individuals and shall include an authorized user of each type of use permitted by the license, the Radiation Safety Officer, a representative of the nursing service, and a representative of management who is neither an authorized user nor a Radiation Safety Officer. Other members may be included as the licensee deems appropriate.
   b. The Committee shall meet at least once each calendar quarter, unless otherwise specified by license condition.
   c. To establish a quorum and to conduct business, 1/2 of the Committee's membership shall be present, including the Radiation Safety Officer and the management representative.
   d. The minutes of each Radiation Safety Committee meeting shall include:
      i. The date of the meeting;
      ii. Members present;
      iii. Members absent;
      iv. A summary of deliberations and discussions;
      v. Recommended actions and the numerical results of all ballots; and
      vi. A reference to the review required in R12-1-407.
   e. The Committee shall provide each member with a copy of the meeting minutes, and retain 1 copy for 3 years.
2. Oversight; the Committee shall:
   a. Review the radiation protection program for all sources of radiation as required in R12-1-407;
   b. Establish a table of investigational levels for occupational dose that, when exceeded, will initiate investigations and considerations of action by the Radiation Safety Officer; and
   c. Establish the safety objectives of the quality management program required by R12-1-707.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-707. Quality Management Program**
Each licensee, using radioactive material or the radiation from radioactive material for therapeutic purposes, shall establish and maintain a written quality management program so that radioactive material or radiation from it will be administered as directed by an authorized user. The quality management program shall include written policies and procedures to meet the specific patient safety objectives established by the Radiation Safety Committee or Radiation Safety Officer for licensees not required to have a Radiation Safety Committee.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-708. Misadministration Reports and Records**

**A.** Reports of therapy misadministrations.
   1. When a administration involves any therapy procedure, the licensee shall also notify the referring physician of the affected patient and the patient or a responsible relative or guardian, unless the referring physician personally informs the licensee either that he or she will inform the patient, or that in his or her medical judgment, telling the patient or the patient's responsible relative or guardian would be harmful to 1 or the other, respectively. These notifications shall be made within 24 hours after the licensee discovers the misadministration. If the referring physician or the patient's responsible relative or guardian cannot be reached within 24 hours, the licensee shall notify them as soon as practicable. The licensee shall not delay medical care for the patient because of notification problems.
   2. Within 15 days after the initial therapy misadministration report to the Agency, the licensee shall report, in writing, to the Agency and to the referring physician and furnish a copy of the report to the patient or the patient's responsible relative or guardian, depending on who was previously notified by the licensee under subsection (A)(1). The written report shall include the licensee's name, the referring physician's name, a brief description of the event, the effect on the patient, the action taken to prevent recurrence, whether the licensee informed the patient or the patient's responsible relative or guardian, and if not, why not. The report shall not include the patient's name or other information that could lead to identification of the patient.

**B.** When a misadministration involves a diagnostic procedure, the licensee shall notify, in writing, the referring physician and the Agency. A licensee's report of a diagnostic misadministration is due within 10 days after the end of the calendar quarter (defined by March, June, September and December) in which the misadministration occurs. The written report shall include the licensee's name, the referring physician's name, a description of the event, the effect on the patient, and the action taken to prevent recurrence. The report shall not include the patient's name or other information that could lead to identification of the patient.

**C.** Each licensee shall maintain, for Agency inspection, records of all misadministrations of radiopharmaceuticals or radiation from teletherapy or brachytherapy sources. These records shall contain the names of all individuals involved in the event, including the physician, allied health personnel, the patient, and the patient's referring physician; the patient's social security number or other identification number if one has been assigned; a brief description of the event; the effect on the patient; and the action taken to prevent recurrence. These records shall be preserved until the Agency authorizes disposal.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-709. Reserved**

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-710. Visiting Authorized User**

**A.** A licensee may permit any visiting authorized user to use licensed material for a medical purpose under the terms of the licensee's license for 60 days each year if:
1. The visiting authorized user has the prior written permission of the licensee's management and Radiation Safety Committee, if applicable;
2. The licensee has a copy of an Agency, Agreement State, Licensing State, or NRC license that identifies the visiting authorized user by name as a person authorized to use licensed material for medical purposes; and
3. Only those procedures for which the visiting authorized user is specifically authorized by an Agency, Agreement State, Licensing State, or NRC license are performed by that individual, and

**B.** A licensee need not apply for a license amendment in order to permit a visiting authorized user to use licensed material as described in subsection (A).

**C.** A licensee shall retain a copy of the license specified in subsection (A)(2) for 3 years from the date of the last visit.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-711. Calibration and Reference Sources**
Any person authorized by R12-1-703 for medical use of radioactive material may receive, possess, and use the following radioactive material for check, calibration, and reference purposes:

**A.** Sealed sources manufactured and distributed by persons specifically licensed under 12 A.A.C. 1, Article 3 or equivalent provisions of the NRC, Agreement State, or Licensing State and that do not exceed 1.1 GBq (30 millicuries) each;

**B.** Any radioactive material listed in Group I, Group II, or Group III of Exhibit A of this Article with a half-life not longer than 100 days, in amounts not to exceed 555 MBq (15 millicuries) total;

**C.** Any radioactive material listed in Group I, Group II, or Group III of Exhibit A of this Article with half-life greater than 100 days in amounts not to exceed 7.4 MBq (200 microcuries) total; and

**D.** Technetium-99m in individual amounts not to exceed 1.85 GBq (50 millicuries).

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-712. Sealed Sources**

**A.** Each medical and nuclear pharmacy licensee shall conduct a quarterly physical inventory to account for all radioactive sealed sources received and possessed. Records of the inventories shall be maintained for inspection by the Agency and shall include the quantities, kinds of radioactive material, location of sources, the date of the inventory, and signature of the person performing the inventory.

**B.** A licensee shall use radioactive sealed sources for medical purposes as prescribed in R12-1-450(A).

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-713. Dose Calibrators**
A medical use licensee shall possess a dose calibrator and use it to measure the amount of radioactivity administered to a person and to ensure that the amount given to the person is the authorized user's prescribed amount.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-714. Brachytherapy**

**A.** Accountability, storage, and transit.
1. Except as otherwise specifically authorized by the Agency, each licensee shall keep a record of the issue and return of all sealed sources.
2. When not in use, the licensee shall keep sealed sources and applicators containing sealed sources in a protective enclosure of such material and wall thickness as is necessary to assure compliance with the provisions of 12 A.A.C. 1, Article 4.
3. Each licensee shall conduct a quarterly physical inventory to account for all brachytherapy sources and devices containing brachytherapy sources received and possessed. Records of the inventories shall be maintained for inspection by the Agency and shall include the quantities and kinds of radioactive material, location of sources and devices, and the date of the inventory.
4. Each licensee shall follow the radiation safety and handling instructions approved by the Agency; or follow the radiation safety and handling instructions furnished by the manufacturer on the label attached to the brachytherapy source, the device containing a brachytherapy source, the permanent container containing the brachytherapy source, or in the leaflet or brochure which accompanies the brachytherapy source or device, and maintain these such instructions in a legible and easily accessible form. If the handling instructions, leaflet, or brochure is no longer available or a copy cannot be obtained from the manufacturer, the Agency shall be notified the source information is no longer available.
5. A physician, transporting a brachytherapy source or applicator containing a brachytherapy source for his or her own use in the practice of medicine, shall transport the brachytherapy source or applicator according to the requirements in 12 A.A.C. 1, Article 15.

**B.** A licensee shall perform leak testing on brachytherapy sources for radioactive contamination as required in R12-1-417.

**C.** Radiation surveys.
1. A physician on a radioactive material license or qualified designee shall measure the maximum radiation level at a distance of 1 meter (40 in.) from the patient in whom brachytherapy sources have been inserted, using a calibrated survey instrument. This radiation level shall be entered on the patient's chart and other signs posted as required in subsection (D).
2. A physician on a radioactive material license or qualified designee shall measure and record the radiation level in the patient's room and the surrounding area. The licensee shall maintain the record for Agency inspection.
3. The licensee shall assure that patients treated with cobalt-60, cesium-137, iridium-192, or radium-226 implants remain hospitalized until a source count and a radiation survey of the patient, using a calibrated survey instrument, confirm that all radiation emitting implants have been removed.

**D.** Signs and records.
1. In addition to the requirements in R12-1-429, the licensee shall mark the bed, cubicle or room of the hospital brachytherapy patient with a sign indicating the presence of brachytherapy sources. This sign shall incorporate the radiation symbol and specify the radionuclide, activity, date, and individual to contact for radiation safety instructions. The sign is not required if any of the exceptions in R12-1-430 apply.

2. A physician on a radioactive material license or a qualified designee shall include the following information in the patient's records when the patient is undergoing brachytherapy:
   a. The radionuclide administered, the number of sources, the activity in millicuries, and the time and date of administration;
   b. The exposure or dose rate at 1 meter, the time the measurement was made, and by whom;
   c. The radiation symbol; and
   d. The precautionary instructions necessary to assure that the exposure of individuals does not exceed that permitted in R12-1-408.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-715. Reserved**

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-716. Teletherapy**

**A.** A licensee shall use equipment that meets all of the following specifications:
1. The teletherapy equipment housing is constructed so that, at 1 meter (40 in.) from the teletherapy source, the maximum exposure rate does not exceed 100 µSv (10 mrem) per hour when the beam control mechanism is in the "off" position. The average exposure rate measure at a representative number of points about the housing, each 1 meter (40 in.) from the teletherapy source, does not exceed .20 µSv (2 mrem) per hour 1 meter (40 in.) from the source.
2. For teletherapy equipment installed after May 15, 1967, the leakage radiation measured at 1 meter from the source when the beam control mechanism is in the "on" position does not exceed 260 µC/kg (1 R ) per hour or 0.1 percent of the useful beam exposure rate, whichever is less.
3. Adjustable or removable beam-defining diaphragms allow transmission of not more than 5% of the useful beam exposure rate.
4. The beam control mechanism is of a design capable of acting in any orientation of the housing. The mechanism is designed so that it can be manually returned to the "off" position with a minimum risk of exposure.
5. The closing device is designed to return automatically to the "off" position in the event of any breakdown or interruption of power and stays in the "off" position until activated from the control panel.
6. When any door to the treatment room is opened, the beam control mechanism automatically and rapidly restores the unit to the "off" position and causes it to remain there until the unit is reactivated from the control panel.
7. There is at the housing and at the control panel a warning device that plainly indicates whether the beam is on or off and an independent radiation monitoring device which:
   a. Continuously monitors the condition of the teletherapy beam and
   b. Provides a continuously visible signal to the operator.
8. The equipment has a locking device to prevent unauthorized use.
9 The control panel has a timer that automatically terminates the exposure after a preset time.
10. The equipment permits continuous observation of patients during irradiation.

**B.** The authorized user shall ensure that no individual is in the treatment room during irradiation unless that individual is the patient. Mechanical restraining or supporting devices shall be used for positioning the patient, if necessary.

**C.** The licensee shall test the teletherapy sources for leakage and contamination as required in R12-1-417. The licensee shall also wipe accessible surfaces of the housing port or collimator while the source is in the "off" position, measuring the wipe samples for transferred contamination.

**D.** Calibration requirements.
1. The licensee's expert, qualified by training and experience under subsection (G), shall perform full calibration measurements on each teletherapy unit:
   a. Prior to the 1st use of the unit for treating humans.
   b. Prior to treating humans:
      i. Whenever spot-check measurements indicate that the output value differs by more than 5% from the value obtained at the last full calibration, corrected mathematically for decay;
      ii. Following replacement of the radiation source or following reinstallation of the teletherapy unit in a new location; or
      iii. Following any repair of the teletherapy unit that includes removal of the source or major repair of the components associated with the source exposure assembly; and
   c. At intervals not exceeding 1 year.
2. Full calibration measurements include determination of:
   a. The exposure or dose rate, to an accuracy within +/ -3% for the range of field sizes and for the range of distances or the axis distance used in radiation therapy;
   b. The congruence between the radiation field and the field indicated by the light beam localizing device;
   c. The uniformity of the radiation field and its dependence upon the orientation of the useful beam;
   d. Timer accuracy; and
   e. The accuracy of all distance measuring devices used for treating humans.
3. Reserved.
4. The expert shall correct the exposure rate or dose rate values mathematically for intervals not exceeding 1 month.

**E.** Spot check measurements.
1. The licensee's expert or other authorized agent shall perform spot check measurements on each teletherapy unit at intervals not exceeding 1 month.
2. Spot check measurements shall include determination of:
   a. Timer accuracy;
   b. The congruence between the radiation field and the field indicated by the light beam localizing device;
   c. The accuracy of all distance measuring devices used for treating humans;
   d. The exposure rate dose or a quantity related to this rate for 1 typical set of operating conditions; and
   e. The difference between the measurement made and the anticipated output, expressed as a percentage of the anticipated output; (For example, the value obtained at last full calibration corrected mathematically for decay).
3. The expert shall establish spot check measurement procedures. If the expert does not perform the spot check measurements, the results of the spot check measurements shall be reviewed by the expert within 15 days.

**F.** Dosimetry systems.

1. The licensee's expert shall perform full calibration measurements using a dosimetry system that has been calibrated by the National Bureau of Standards or by a Regional Calibration Laboratory accredited by the American Association of Physicists in Medicine. The dosimetry system shall have been calibrated within the previous 2 years and after any servicing that may have affected system calibration.
2. Spot check measurements shall be performed using a dosimetry system that has been calibrated as required in subsection (F)(1). Alternatively a dosimetry system used solely for spot check measurements may be calibrated by direct intercomparison with a system that has been calibrated according to the standards in subsection (F)(1). This alternative calibration method shall have been performed within the previous 1 year and after each servicing that may have affected system calibration. Dosimetry systems calibrated by this alternative method shall not be used for full calibration measurements.

**G.** The licensee shall determine if a person is an expert, qualified by training and experience to calibrate a teletherapy unit, establish procedures for spot check measurements, and review the results of such measurements. The licensee shall determine that the qualified expert:
1. Is certified by the American Board of Radiology in: Therapeutic Radiological Physics, Radiological Physics, Roentgen-Ray and Gamma-Ray Physics, or X-ray and Radium Physics; or the American Board of Medical Physicists in Radiation Oncology Physics; or
2. Has the following minimum training and experience:
   a. A Master's or Doctor's degree in physics, biophysics, radiological physics or health physics;
   b. One year of full-time training in therapeutic radiological physics; and
   c. One year of full-time experience in radiotherapy facility, including personal calibration and spot check of at least 1 teletherapy unit.
3. Licensees, that have their teletherapy units calibrated by persons who do not meet the criteria in subsections (1) and (2) for minimum training experience, may request a license amendment excepting them from these training requirements. The request should include the name of the proposed qualified expert, a description of the expert's training and experience, including information similar to that specified in subsection (2), reports of at least 1 calibration and 1 spot check, based on measurements personally made by the proposed expert within the last 10 years, and a written endorsement of the expert's qualifications by a physicist certified by the American Board of Radiology in 1 of the specialties listed in subsection (1), based on personal knowledge.

**H.** The licensee shall maintain for inspection by the Agency: records of measurements, tests, corrective actions, and instrument calibrations made under subsections (D) and (E), and records of the licensee's evaluation of the qualified expert's training and experience under subsection (G).
1. The licensee shall preserve records of the following for 3 years after completion of each full calibration:
   a. Full calibration measurements; and
   b. Calibration of the instruments used to make the full calibration measurements.
2. The licensee shall preserve records of the following for 3 years after completion of each spot check:
   a. Spot check measurements and corrective actions; and
   b. Calibration of instruments used to make spot check measurements.
3. The licensee shall preserve records of the licensee's evaluation of the qualified expert's training and experience for 3 years after the qualified expert's last performance of a full calibration on the licensee's teletherapy unit.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-717. High Dose Rate Remote After-loading Brachytherapy Devices**

**A.** Each after-loading irradiation facility shall have a system permitting continuous observation of the patient from outside the treatment room during patient irradiation.

**B.** The licensee shall post written emergency instructions at the after-loading irradiation device operator console. These instructions shall inform the device operator of the procedures to be followed if the source fails to return to the shielded position.

**C.** The licensee shall ensure that the after-loading irradiator facility has the following:
1. Access to the room housing the after-loading irradiation device is controlled by a door at the entrance. The doors are normally closed.
2. The entrance to the treatment room is equipped with an electrical interlock system that will cause the source to return to the shielded position immediately if the entrance door is opened. The interlock system is connected in such a manner that the source cannot be exposed until the entrance door is closed and the source "on-off" control is reset at the control panel.

**D.** The licensee shall test the electrical interlocks on the entrance door to the treatment room for proper operation at least once a month. Records of test results shall be maintained for 3 years for inspection by the Agency.

**E.** In the event of malfunction of the door interlock, the licensee shall lock the after-loading irradiation device in the "off" position and not use the after-loading, except as may be necessary to repair or replace the interlock system, until the interlock system is shown to be functioning properly.

**F.** Before initiation of a treatment program, and after each source exchange for the after-loading device:
1. The licensee shall perform radiation surveys of the following locations:
   a. The after-loading device source housing, with the source in the shielded position. The maximum radiation level at 20 centimeters from the surface of the source housing shall not exceed 3 milliroentgens per hour.
   b. All areas adjacent to the treatment room with the source in the exposed position. The survey shall clearly establish:
      i. That radiation levels in restricted areas are not likely to cause personnel exposure in excess of the limits specified in R12-1-408 and R12-1-414.
      ii. That radiation levels in unrestricted areas do not exceed the limits specified in R12-1-416.
      iii. The activity of the source, using an Agency approved procedure and a calibrated Farmer chamber, or equivalent.
2. The licensee shall retain records of the radiation surveys for 3 years for inspection by the Agency.

**G.** A person shall not perform the following work without written authorization by the Agency:

1. Installation and replacement of sources contained in an after-loading irradiation device; or
2. Any maintenance or repair operation on the after-loading irradiation device involving work on the source driving unit, or other mechanism that could expose the source, reduce the shielding around the source, or compromise the safety of the unit and result in increased radiation levels.

**H.** Before making any changes to treatment room shielding, treatment room location, or use of the after-loading irradiation device which could result in an increase in radiation levels in unrestricted areas outside the treatment room, the licensee shall perform a radiation survey according to subsection (F)(1). A report describing each change, and giving the results of each survey shall be sent to the Agency.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-718. Gamma Stereotactic Radiosurgery**

**A.** A licensee shall provide the manufacturer's written radiological safety and operating instructions to each person responsible for operation of a stereotactic radiosurgery system.

**B.** A person licensed by the Agency shall install the stereotactic radiosurgery system and perform all service and maintenance involving exposure to persons in the treatment room beyond normal "Beam-off" conditions.

**C.** In lieu of a direct source inventory, the licensee shall perform an indirect source inventory through completion of absolute calibrations of the radiation dose-rate at the intersection of all beam axes of the radiosurgery radiation unit on a 6 month basis. The magnitude of this dose-rate shall be compared with the appropriately decayed value of the initial or acceptance date, calibrated dose-rate at the intersection of all beam axes. This measured dose-rate serves as verification that all sources inserted into the gamma knife are still present.

**D.** A licensee shall ensure that a stereotactic radiosurgery facility has the following safeguards:

1. Access to the radiosurgery room is controlled by a door at each entrance. The doors are normally closed.
2. Each entrance to the radiosurgery room is equipped with an electrical interlock system that will turn the unit's primary beam of radiation off immediately if any entrance door is opened. The interlock system is connected in such a manner that the machine's primary beam of radiation cannot be turned on until all treatment room entrance doors are closed and the beam "ON-OFF" control is reset at the control panel.
3. In the event of malfunction of any door interlock, the radiosurgery system control is locked in the "OFF" position and not used, except as may be necessary to the repair or replacement of the interlock system, until the interlock system is shown to be functioning properly.
4. The radiosurgery room has a system permitting continuous observation of the patient from outside the radiosurgery room during patient irradiation.
5. Written instructions, including the manufacturer's radiological safety and operating procedures, are available at the stereotactic radiosurgery controls. These instructions inform the operator of the procedure to be followed in the event of malfunction. These instructions caution individuals on how to avoid exposure to radiation in the treatment room and include specific instructions for:
   a. Removing the patient from the treatment room;
   b. Securing the room against unauthorized entry; and
   c. Notifying the responsible physician or radiation safety officer.

**E.** The licensee shall test electrical interlocks on entrance doors to the radiosurgery room for proper operation at least once every 3 months. Records of test results shall be maintained for inspection by the Agency.

**F.** The licensee shall cease treatment of patients with the therapy unit if a safety related system of the unit is found inoperative, including couch or helmet drive mechanisms, positioning mechanisms, treatment timing systems, safety interlocks, or radiation field alarms.

**G.** Before initiation of a treatment program, and after each installation of radiosurgery sources.

1. The licensee shall perform radiation surveys of the following locations:
   a. The radiosurgery system source housing. The maximum and average radiation levels at 1 meter from the nearest source with the device's shielding door closed, shall not exceed 10 milliroentgens per hour and 2 milliroentgens per hour, respectively, for any of the device's sources, when all sources are installed.
   b. Unrestricted areas adjacent to the treatment room, with the device's shielding door open. The survey shall be performed with a phantom in the primary beam of radiation and shall clearly establish that radiation levels in restricted and unrestricted areas do not exceed the limits specified in 12 A.A.C. 1, Article 4.
2. The licensee shall test the following safety equipment:
   a Electrical interlocks on entrance doors to the therapy treatment room;
   b. The therapy source "ON-OFF" indicators, both at the source housing and on the system control panel; and
   c. The radiosurgery system treatment timing device.

**H.** After any changes made in treatment room shielding, treatment room location, or use of the stereotactic radiosurgery system which could result in an increase in radiation levels in unrestricted areas outside of the therapy treatment room, the licensee shall conduct a radiation survey according to subsection (G). A report describing the changes and giving the survey results shall be sent to the Agency no later than 30 days following completion of the changes.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-719. Release of Individuals Containing Radiopharmaceuticals or Radioactive Sealed Sources from Restricted Areas**

**A.** A licensee may authorize the release of any individual who has received radiopharmaceuticals or permanent implants containing radioactive material if the total effective dose equivalent to any other individual from exposure to the released individual is not likely to exceed 5 millisieverts (0.5 rem) or an amount specified in license conditions.

**B.** The licensee shall provide the released individual with oral and written instructions, on recommended actions that will make doses to other individuals as low as is reasonably achievable, if the total effective dose equivalent to any other individual is likely to exceed 1 millisievert (0.1 rem).

**C.** The licensee shall maintain a record of the criteria used to authorize the release of an individual containing radioactive material. The record shall be maintained for 3 years after the date of release if the total effective dose equivalent is calculated by using:

1. The retained activity rather than the activity administered,
2. An occupancy factor of less than 0.25 at 1 meter,
3. The biological or effective half-life, or
4. The shielding by tissue.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Exhibit A. Groups of Medical Uses of Radioactive Material**

**Group I.**

**A.** Use of prepared radiopharmaceuticals for certain diagnostic studies involving measurements of uptake, dilution, and excretion. This group does not include uses involving diagnostic study imaging, and tumor localization.
1. Iodine-123
2. Iodine-125
3. Iodine-131
4. Cobalt-57
5. Cobalt-58
6. Cobalt-60
7. Chromium-51
8. Iron-59
9. Potassium-42
10. Sodium-24
11. Technetium-99m

**B.** A licensee shall use a radioactive material listed in subsection (A) in the form of a radiopharmaceutical prepared for medical purposes that is:
1. Obtained from a manufacturer or preparer licensed according to 10 CFR 32.72, 1998 Edition, published January 1, 1998, or equivalent Agreement State requirements. This incorporation by reference is on file with the Agency and the Office of Secretary of State, and contains no future editions or amendments; or
2. Prepared by a nuclear pharmacist or a physician who is an authorized user on a radioactive material license, and meets the training and experience requirements in 10 CFR 35(J), or an individual under the supervision of either as specified in 10 CFR 35.25, 1998 Edition, published January 1, 1998, both references are incorporated by reference, and on file with the Agency and the Office of Secretary of State. These incorporations contain no future editions or amendments.

**Group II.**

**C.** A use of prepared radiopharmaceuticals for diagnostic study, imaging, and tumor localization.
1. Iodine-123
2. Iodine-125
3. Iodine-131
4. Selenium-75
5. Technetium-99m
6. Ytterbium-169
7. Indium-111
8. Indium-113m
9. Chromium-51
10. Fluorine-18
11. Gallium-67
12. Gold-198
13. Thallium-201
14. Rubidium-82
15. Carbon-11

**D.** A licensee shall use a radioactive material listed in subsection (C) in the form of a radiopharmaceutical prepared for medical purposes that is:
1. Obtained from a manufacturer or preparer according to subsection (B)(1); or
2. Prepared by a nuclear pharmacist or a physician who is authorized according to subsection (B)(2)

**Group III.**

**E.** Use of generators and reagent kits for the preparation and use of radiopharmaceuticals containing radioactive material for certain diagnostic uses.
1. Molybdenum-99/Technetium-99m generators
2. Tin-113/Indium-113m generators
3. Technetium-99m (in bulk)
4. Rubidium-81/Krypton-81m

**F.** A licensee shall acquire and use a radioactive material listed in subsection (E) in the form of a radiopharmaceutical prepared for medical purposes that is:
1. Obtained from a manufacturer or preparer according to subsection (B)(1); or
2. Prepared by a nuclear pharmacist or a physician who is authorized according to subsection (B)(2)

**Group IV.**

**G.** Use of prepared radiopharmaceuticals for certain therapeutic uses that do not normally require hospitalization for purposes of radiation safety.
1. Iodine-131, in quantities less than 33 millicuries
2. Phosphorus-32
3. Strontium-89
4. Samarium-153

**H.** A licensee shall use a radioactive material listed in subsection (G) in the form of a radiopharmaceutical prepared for medical purposes that is:
1. Obtained from a manufacturer or preparer according to subsection (B)(1); or
2. Prepared by a nuclear pharmacist or a physician who is authorized according to subsection (B)(2)

**Group V.**

**I.** Use of prepared radiopharmaceuticals for certain therapeutic procedures that normally require hospitalization for purposes of radiation safety.
1. Iodine-131
2. Gold-198

**J.** A licensee shall use a radioactive material listed in subsection (I) in the form of a radiopharmaceutical prepared for medical purposes that is:
1. Obtained from a manufacturer or preparer according to subsection (B)(1); or
2. Prepared by a nuclear pharmacist or a physician who is authorized according to subsection (B)(2).

**Historical Note**
New Exhibit adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

## ARTICLE 8. RADIATION SAFETY REQUIREMENTS FOR ANALYTICAL X-RAY OPERATIONS

**R12-1-801. Scope**

The rules in this Article establish requirements for the use of analytical x-ray equipment. The provisions of this Article are not in substitution for other applicable provisions of this Chapter.

**Historical Note**
Former Rule Section H.1; Former Section R12-1-801 repealed, new Section R12-1-801 adopted effective June 30, 1977 (Supp. 77-3). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-802. Definitions**

"Analytical x-ray equipment" means devices or machines used for x-ray diffraction or x-ray induced fluorescence analysis.

"Analytical x-ray system" means a group of components utilizing x-rays to determine the elemental composition or to examine the microstructure of materials.

"Enclosed beam x-ray system" means an analytical x-ray system constructed in such a way that access to the interior of the enclosure housing the x-ray source is precluded during operation except through bypassing of interlocks or other safety devices to perform maintenance or servicing.

"Fail-safe characteristic" means a design feature which causes beam port shutters to close, or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

"Local component" means part of an analytical x-ray system and includes each area that is struck by x-rays, such as radiation source housings, port and shutter assemblies, collimators, sample holders, cameras, goniometers, detectors and shielding, but does not include power supplies, transformers, amplifiers, readout devices, and control panels.

"Normal operating procedures" means instructions or procedures including, but not limited to, sample insertion and manipulation, equipment alignment, routine maintenance by the registrant, and data recording procedures which are related to radiation safety.

"Open beam x-ray system" means an analytical x-ray system which permits an individual to place some body part in the primary beam path during normal operation.

"Primary beam" means radiation which passes through an aperture of the source housing on a direct path from the x-ray tube.

**Historical Note**

Former Rule Section H.2; Former Section R12-1-802 repealed, new Section R12-1-802 adopted effective June 30, 1977 (Supp. 77-3). Amended effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-803. Enclosed Beam X-ray Systems**

**A.** Enclosed beam x-ray systems are exempt from other equipment requirements contained in this Article provided the enclosed beam x-ray systems are designed and constructed so that radiation levels measured at 5 cm from any accessible surface of the enclosure housing the x-ray source do not exceed 5 μSv (0.5 mrem) in 1 hour.

**B.** A registrant using enclosed beam x-ray systems shall comply with applicable provisions of R12-1-804(A), R12-1-805(B), and 12 A.A.C. 1, Article 4.

**C.** A registrant shall provide individuals performing maintenance, servicing, or alignment procedures, where bypassing of interlocks or other safety devices to gain access to the interior of the enclosure is required, with appropriate personnel monitoring devices (that is, wrist or finger badges). These individuals shall wear the devices while performing the work.

**D.** Intentional bypassing of safety devices shall be authorized in advance by the individual responsible for radiation protection. Bypassing shall be terminated as soon as the activity described in subsection (C) is complete, or the equipment shall be labeled as out-of-service with a conspicuous sign until repairs are completed.

**Historical Note**

Former Rule Section H.3; Former Section R12-1-803 repealed, new Section R12-1-803 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-803 repealed, new Section R12-1-803 adopted effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-804. Open Beam X-ray Systems**

**A.** A registrant shall label open beam x-ray systems with a readily discernible sign or signs bearing the radiation symbol and the words:
1. "CAUTION -- HIGH INTENSITY X-RAY BEAM", or a similar warning, on the x-ray source housing; and
2. "CAUTION RADIATION -- THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED" or a similar warning, near any switch that energizes an x-ray tube if the radiation source is an x-ray tube.

**B.** A registrant shall ensure that an open beam x-ray system has all of the following warning devices:
1. X-ray tube status (On-Off) indicator in systems where the primary beam is controlled in this fashion;
2. Shutter status (Open-Closed) indicators near each port on the radiation housing for systems which control the primary beam; and
3. A clearly visible warning light labeled with the words "X-RAY ON", or a similar warning located near any switch that energizes an x-ray tube, illuminated only when the tube is energized; and
4. The warning devices in subsections (1) through (3) shall be labeled so that their purpose is easily identified.

**C.** A registrant shall ensure that any apparatus utilized in beam alignment procedures is designed in such a way that excessive radiation will not strike the operator. Particular attention shall be given to viewing devices, in order to ascertain that lenses and other transparent components attenuate the beam to an acceptable level.

**D.** A registrant shall provide an interlock device which prevents entry of any portion of an individual's body into the primary beam or causes the primary beam to be shut off upon entry into its path on all open-beam x-ray systems. A registrant may apply to the Agency for an exemption from the requirements of a safety device. An application for exemption shall include:
1. A description of the various safety devices that have been evaluated;
2. The reason each device cannot be used; and
3. A description of the alternative methods that will be used to minimize accidental exposure, including procedures to assure that operators and others in the area will be informed of the absence of safety devices.

**E.** On open-beam configurations installed after the effective date of these rules, a registrant shall equip each port on the radiation source housing with a shutter that cannot be opened unless a collimator or a coupling has been connected to the port.

**F.** A registrant shall equip each x-ray tube housing with an interlock that shuts off the tube if the tube is removed from the housing or if the housing is disassembled.

**G.** A registrant shall supply each x-ray generator with a protective cabinet which limits leakage radiation measured at a distance of 5 cm (2 in.) from its surface so that it is not capable of producing a dose equivalent in excess of 25 μSv (2.5 mrem) in 1 hour.

**H.** A registrant shall ensure that the local components of an analytical x-ray system are located and arranged and have sufficient shielding or access control so that no radiation levels exist in any area surrounding the local component group which could result in a dose to an individual present in the areas surrounding the local components in excess of the dose limits in R12-1-416 of this Chapter. For systems utilizing x-ray tubes, these limits shall be met at any specified tube rating.

**I.** A registrant shall perform a radiation survey of the local component group of each analytical x-ray system sufficient to demonstrate compliance with subsection (H). The survey shall

be performed following installation, change in configuration, or maintenance, affecting the radiation levels in the areas surrounding the local component group. Records of surveys shall be maintained for 3 years or until the analytical x-ray system is no longer used, whichever is shorter.

**Historical Note**
Former Rule Section H.4; Former Section R12-1-804 repealed, new Section R12-1-804 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-804 renumbered as Section R12-1-805 without change, new Section R12-1-804 adopted effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-805. Administrative Responsibilities**

**A.** A registrant shall designate an individual at each facility who is responsible for maintaining radiation safety. This individual, designated the Radiation Safety Officer, shall:
1. Establish and maintain operational procedures so that the radiation exposure of each worker is kept as far below the maximum permissible dose as is practical;
2. Instruct all personnel who work with or near radiation producing machines in safety practices;
3. Maintain a system of personnel monitoring;
4. Establish radiation control areas, including placement of appropriate radiation warning signs or devices;
5. Provide a radiation safety inspection of radiation producing machines on a routine basis;
6. Review modifications to x-ray systems, including x-ray tube housing, cameras, diffractometers, shielding, and safety interlocks;
7. Investigate and report proper authorities any case of excessive exposure to personnel and take remedial action; and,
8. Be familiar with all applicable rules for control of ionizing radiation.

**B.** An individual shall not be permitted to operate or maintain an open beam analytical x-ray system unless the individual has received instruction in and demonstrated competence in all of the following:
1. Identification of radiation hazards associated with the use of the equipment;
2. Significance of all radiation warning and safety devices, interlocks incorporated into the equipment, or the reasons that devices or interlocks have not been installed on certain pieces of equipment and the extra precautions required in lieu of these precautions;
3. Proper operating procedures for the equipment;
4. Recognition of symptoms of acute localized radiation exposure;
5. Proper procedure for reporting an actual or suspected exposure; and

**C.** A registrant shall maintain records of instruction and competence for Agency inspection for 3 years from the date of course completion or demonstration.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-805 renumbered as Section R12-1-806 without change. Former Section R12-1-804 renumbered as Section R12-1-805 without change effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-806. Operating Requirements**

**A.** A Radiation Safety Officer shall establish written emergency procedures pertaining to radiation safety for each analytical x-ray system and post the procedures in a conspicuous location. The procedures shall include the telephone number of the Radiation Safety Officer. A registrant shall notify the Radiation Safety Officer in case of a known or suspected radiation exposure accident and arrange for medical examination for the person exposed.

**B.** A registrant shall provide normal operating procedures to all analytical x-ray equipment workers. An individual shall not operate analytical x-ray equipment in any manner other than that specified in the procedures unless the individual has obtained the Radiation Safety Officer's written approval.

**C.** An individual shall not bypass a safety device or interlock unless the individual has obtained Radiation Safety Officer approval. The approval shall be for a specific period of time. When a safety device or interlock has been bypassed, the Radiation Safety Officer shall place a readily discernible sign on the radiation source housing, warning the reader of the unsafe condition. A registrant shall maintain the written record of the bypass approval for 3 years after the approval expires.

**D.** Except as authorized in subsection (C), an individual shall not perform an operation involving removal of covers, shielding materials, or tube housings or modification of shutters, collimators, or beam stops without ascertaining that the tube is off and that it will remain off until all protective devices have been restored to the normal operating condition. An individual repairing analytical x-ray equipment shall use the main switch, rather than interlocks, for routine shutdown in preparation for repairs.

**E.** The registrant shall secure unused ports on radiation source housings in the closed position, preventing unauthorized access to the radiation source.

**F.** Finger or wrist personnel monitoring devices shall be used by:
1. Operators of open beam analytical x-ray equipment not equipped with a safety device; and
2. Personnel performing maintenance procedures that require the presence of a primary x-ray beam when any local component is disassembled or removed.

**G.** The registrant shall test safety devices and warning devices for proper operation at intervals not to exceed 1 month. Records of tests shall be maintained for Agency inspection for 3 years following the completion of each test.

**Historical Note**
Former Section R12-1-805 renumbered as Section R12-1-806 without change effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

## ARTICLE 9. RADIATION SAFETY REQUIREMENTS FOR PARTICLE ACCELERATORS

**R12-1-901. Purpose and Scope**

**A.** This Article establishes procedures and requirements for the registration and the use of particle accelerators.

**B.** In addition to the requirements of this Article, all registrants are subject to the requirements of Articles 1, 2, 4, and 10. Registrants engaged in industrial radiographic operations are subject to the requirements of Article 5, and registrants engaged in the healing arts are subject to the requirements of Article 6 of these rules. Registrants engaged in the use or production of radioactive material are subject to the requirements of Article 3.

**Historical Note**
Former Rule Section I.1; Former Section R12-1-901 repealed, new Section R12-1-901 adopted effective June 30, 1977 (Supp. 77-3). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-902. Repealed**

**Historical Note**
Former Rule Section I.2; Former Section R12-1-902 repealed, new Section R12-1-902 adopted effective June 30, 1977 (Supp. 77-3). Amended effective June 13, 1997 (Supp. 97-2). Section repealed by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-903. General Requirements for the Issuance of a Registration for Particle Accelerators**

**A.** The requirements in this section supplement the registration requirements in 12 A.A.C. 1, Article 2.

**B.** The Agency shall approve a registration application for use of a particle accelerator only if the Agency determines that:
1. The applicant is qualified by training and experience to use the accelerator for the purpose requested according to this Article, and Articles 4 and 10, of these rules to minimize danger to public health or property;
2. The applicant's proposed equipment, facilities, operating, and emergency procedures are adequate to protect health and minimize danger to public health and safety or property;
3. The issuance of the registration will not be inimical to the health and safety of the public, and the applicant satisfies any applicable special requirement in R12-1-904;
4. The applicant has appointed a radiation safety officer;
5. The applicant's staff has substantial experience in the use of particle accelerators for the intended uses; and
6. The applicant has an adequate training program for particle accelerator operators.

**Historical Note**
Former Rule Section I.3; Former Section R12-1-903 repealed, new Section R12-1-903 adopted effective June 30, 1977 (Supp. 77-3). Amended effective Aug. 8, 1986 (Supp. 86-4). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-904. Special Registration Requirements for Medical Use of Particle Accelerators**

**A.** The requirements in this Section supplement the registration requirements in R12-1-903.

**B.** An applicant that is a "medical institution", as defined in 12 A.A.C. 1, Article 7, and performing human research shall appoint a radiation safety committee, meeting the requirements in R12-1-706.

**C.** The applicant shall ensure that an individual designated as an authorized user on the application is an Arizona licensed physician; approved by the radiation safety committee, if applicable; and is:
1. Certified in:
   a. Radiology, therapeutic radiology, or radiation oncology by the American Board of Radiology; or
   b. Radiation oncology by the American Osteopathic Board of Radiology; or
   c. Radiology, with specialization in radiotherapy, as a British "Fellow of the Faculty of Radiology" or "Fellow of the Royal College of Radiology"; or
   d. Therapeutic radiology by the Canadian Royal College of Physicians and Surgeons; or
2. Engaged in the active practice of therapeutic radiology, and has completed 200 hours of instruction in basic techniques applicable to the use of a particle accelerator, 500 hours of supervised work experience, and a minimum of 3 years of supervised clinical experience.
   a. To satisfy the requirement for instruction, the classroom and laboratory training shall include all of the following subjects.
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radiotherapy; and
      iv. Radiation biology.
   b. To satisfy the requirement for supervised work experience, training shall occur under the supervision of an authorized user at a medical institution and shall include:
      i. Reviewing full calibration measurements and periodic spot checks;
      ii. Preparing treatment plans and calculating treatment times;
      iii. Using administrative controls to prevent misadministration;
      iv. Implementing emergency procedures to be followed in the event of the abnormal operation of a particle accelerator; and
      v. Checking and using survey meters.
   c. To satisfy the requirement for a period of supervised clinical experience, training shall include 1 year in a formal training program approved by the Residency Review Committee for Radiology of the Accreditation Council for Graduate Medical Education or the Committee on Postdoctoral Training of the American Osteopathic Association and an additional 2 years of clinical experience in therapeutic radiology under the supervision of an authorized user at a medical institution. The supervised clinical experience shall include:
      i. Examining individuals and reviewing their case histories to determine their suitability for treatment, noting any limitations or contraindications;
      ii. Selecting the proper dose and how it is to be administered;
      iii. Calculating the therapy doses and collaborating with the authorized user in the review of patients' or human research subjects' progress and consideration of the need to modify originally prescribed doses, as warranted by patients' or human research subjects' reaction to radiation; and
      iv. Post-administration follow up and review of case histories.

**D.** With the application the applicant shall provide the name of each authorized user, and the training and experience that satisfies the requirements in subsection (C).

**E.** Each licensee shall establish and maintain a written quality management program to provide high confidence the radiation produced by the particle accelerator will be administered as directed by an authorized user. The quality management program shall include written policies and procedures to meet the specific patient safety objectives established by the Radiation Safety Officer or Radiation Safety Committee, if applicable.

**F.** Each particle accelerator shall be calibrated by an expert meeting the training and experience qualifications in R12-1-716(G).

**G.** The Agency shall inspect a particle accelerator before it is used to treat a human.

**Historical Note**
Former Rule Section I.4; Former Section R12-1-904 repealed, new Section R12-1-904 adopted effective June

30, 1977 (Supp. 77-3). Amended effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-905. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective August 8, 1986 (Supp. 86-4).

**R12-1-906. Limitations**

**A.** No registrant shall permit any person to act as a particle accelerator operator until such person:
1. Has been instructed in radiation safety and shall have demonstrated an understanding thereof;
2. Has received copies of and instruction in this Article and the applicable requirements of Articles 4 and 10, pertinent registration conditions and the registrant's operating and emergency procedures, and shall have demonstrated understanding thereof; and
3. Has demonstrated competence to use the particle accelerator, related equipment, and survey instruments which will be employed in his assignment.

**B.** Both the Radiation Safety Committee and the Radiation Safety Officer shall have the authority to terminate the operations at a particle accelerator facility if such action is deemed necessary to protect health and/or minimize danger to public health and safety or property.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3).

**R12-1-907. Shielding and Safety Design Requirements**

**A.** A person experienced in the principles of radiation protection and installation design shall be consulted in the design of a particle accelerator installation and called upon to perform a radiation survey when the accelerator is 1st capable of producing radiation.

**B.** The registrant shall provide each particle accelerator installation with the primary and secondary barriers that are necessary to assure compliance with R12-1-408 and R12-1-416.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended subsection (A) effective Aug. 8, 1986 (Supp. 86-4). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-908. Particle accelerator controls and interlock systems**

**A.** Instrumentation, readouts and controls on the particle accelerator control console shall be clearly identified and easily discernible.

**B.** All entrances into a target room or other high radiation area shall be provided with interlocks that shut down the machine under conditions of barrier penetration.

**C.** When an interlock system has been tripped, it shall only be possible to resume operation of the accelerator by manually resetting controls at the position where the interlock has been tripped, and lastly at the main control console.

**D.** Each safety interlock shall be on a circuit which shall allow its operation independently of all other safety interlocks.

**E.** All safety interlocks shall be fail safe, i.e., designed so that any defect or component failure in the interlock system prevents operation of the accelerator.

**F.** A scram button or other emergency power cutoff switch shall be located and easily identifiable in all high radiation areas. Such a cutoff switch shall include a manual reset so that the accelerator cannot be restarted from the accelerator control console without resetting the cutoff switch.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3).

**R12-1-909. Warning Devices**

**A.** All areas, except those in medical facilities, designated as high radiation areas, and entrances to the areas shall be equipped with easily observable flashing or rotating warning light system that operates when, and only when, radiation is being produced. Medical facilities shall be equipped with a continuously operating warning light system.

**B.** Except in facilities designed for human exposure, each high radiation area shall have an audible warning device which shall be activated for 15 seconds prior to the creation of the high radiation area. The warning device shall be clearly discernible in all high radiation areas and all radiation areas.

**C.** Barriers, temporary or otherwise, and pathways leading to high radiation areas shall be identified in accordance with R12-1-428 and R12-1-429.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-910. Operating procedures**

**A.** Particle accelerators, when not in operation, shall be secured to prevent unauthorized use.

**B.** Only a switch on the accelerator control console shall be routinely used to turn the accelerator beam on and off. The safety interlock system shall not be used to turn off the accelerator beam except in an emergency.

**C.** All safety and warning devices, including interlocks, shall be checked for proper operability at intervals not to exceed 3 months. Results of such tests shall be maintained for inspection at the accelerator facility.

**D.** Electrical circuit diagrams of the accelerator, and the associated interlock systems, shall be kept current and maintained for inspection by the Agency and available to the operator at each accelerator facility.

**E.** If, for any reason, it is necessary to intentionally bypass a safety interlock or interlocks, such action shall be:
1. Authorized in writing by the Radiation Safety Committee and/or Radiation Safety Officer;
2. Recorded in a permanent log and a notice posted at the interlock(s) so bypassed and at the accelerator control console; and
3. Terminated as soon as possible.

**F.** A copy of the current operating and emergency procedures shall be maintained at the accelerator control panel.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended subsection (D) effective Aug. 8, 1986 (Supp. 86-4).

**R12-1-911. Radiation Survey Requirements**

**A.** The registrant shall ensure that a portable survey instrument is available at all times in a particle accelerator facility.

**B.** A person experienced in the principles of radiation protection and installation design shall:
1. Check operation of the portable survey instrument using a known radiation source prior to its use;
2. Perform and document a radiation protection survey when changes have been made in shielding, operation, equipment, or occupancy of adjacent areas;
3. Perform surveys to determine the amount of airborne particulate radioactivity present in areas of airborne hazards in particle accelerator facilities of greater than 30 Mev;
4. Perform periodic smear surveys to determine the degree of contamination in target and adjoining areas when the conditions described in subsection (B)(3) exist;

5. Perform surveys as prescribed in the written procedures established by the Radiation Safety Officer of the particle accelerator facility.

**C.** The registrant shall retain the following records:
1. Records of any radiation protection survey required in subsection (B), and an associated facility description, required in R12-1-202(E), until the registration is terminated.
2. Records of particle accelerator calibration, spot checks, personnel radiation safety system tests, and periodic radiation protection surveys until the registration is terminated.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective Aug. 8, 1986 (Supp. 86-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-912. Ventilation Systems**

**A.** A registrant or licensee shall provide the means to ensure that personnel entering any area where airborne radioactivity may be produced will not be exposed to airborne radioactive material in excess of those limits specified in Article 4, Appendix B, Table II of this Chapter.

**B.** A registrant or licensee shall not vent, release, or otherwise discharge airborne radioactive material to an uncontrolled area which exceed the limits specified in Article 4, Appendix B, Table II of this Chapter, except as authorized pursuant to R12-1-435. For purposes of this Section, concentrations may be averaged over a period not greater than 1 year. Every reasonable effort should be made to maintain releases of radioactive material to uncontrolled areas as far below the limits in Appendix B, Table II of this Chapter, as practicable.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective Aug. 8, 1986 (Supp. 86-4). Amended effective June 13, 1997 (Supp. 97-2).

## ARTICLE 10. NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS; INSPECTIONS

**R12-1-1001. Purpose and Scope**

This Article establishes requirements for notices, instructions, and reports by licensees or registrants to individuals working for a licensee or registrant. This Article explains the options available to these individuals in connection with ARRA inspections of licensees or registrants regarding radiological working conditions. The rules in this Article apply to all persons who receive, possess, use, own, or transfer sources of radiation licensed or registered by the ARRA.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1002. Posting of Notices to Workers**

**A.** Each licensee or registrant shall post current copies of the following documents:
1. The rules in this Chapter;
2. The license, certificate of registration, conditions, or documents incorporated into the license or registration by reference, and any amendments to the license or registration;
3. The operating procedures applicable to work under the license or registration;
4. Any notice of violation involving radiological working conditions, proposed imposition of a civil penalty, or order issued under 12 A.A.C. 1, Article 12, and any response from the licensee or registrant.

**B.** If posting of a document specified in subsections (A)(1), (2) and (3) is not practicable, the licensee or registrant may post a notice which describes the document and states where it may be examined.

**C.** Form ARRA-6 (shown following R12-1-1008), "Notice to Employees" shall be posted by each licensee or registrant wherever individuals work in or frequent any portion of a restricted area.

**D.** Each licensee or registrant shall post documents, notices, or forms, as required by this Section, so that they are conspicuous and appear in a sufficient number of places to permit individuals engaged in work under the license or registration to observe them on the way to or from any particular work location to which the document applies and shall replace any document if it is defaced or altered.

**E.** Agency documents posted as required in subsection (A)(4) shall be posted within 2 working days after receipt of the documents from the Agency; the licensee's or registrant's response, if any, shall be posted within 2 working days after dispatch from the licensee or registrant. The documents shall remain posted for a minimum of 5 working days or until action correcting the violation has been completed, whichever is later.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1003. Instructions to Workers**

**A.** The licensee or registrant shall inform all individuals working in or frequenting any portion of a restricted area of:
1. The storage, transfer, or use of radioactive material or of radiation in the restricted area and the health protection problems associated with exposure to radioactive material or radiation;
2. Precautions or procedures to minimize exposure, and the purposes and functions of protective devices employed;
3. The applicable provisions of Agency rules and licenses for the protection of personnel from exposures to radiation or radioactive material occurring in each restricted area;
4. Their responsibility to report promptly to the licensee or registrant any condition which may lead to or cause a violation of Agency rules and licenses, or unnecessary exposure to radiation or radioactive material;
5. The appropriate response to warnings made in the event of any unusual occurrence or malfunction that may involve exposure to radiation or radioactive material; and
6. The radiation exposure reports which workers may request under R12-1-1004.

**B.** The extent of these instructions shall be commensurate with potential radiological health protection problems in the restricted area.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1004. Notifications and Reports to Individuals**

**A.** A licensee or registrant shall report radiation exposure data for an individual and the results of any measurements, analyses, and calculations of radioactive material deposited or retained

in the body to the individual as specified in this Section. The information reported shall include data and results obtained under Agency rules, orders, or license conditions, as shown in records maintained by the licensee or registrant. Each notification and report shall be in writing; include appropriate identifying data, such as the name of the licensee or registrant, the name of the individual, and the individual's social security number; include the individual's exposure information; and contain the following statement:

"This report is furnished to you under the provisions of 12 A.A.C. 1. You should preserve this report for future reference."

**B.** Each licensee or registrant shall provide annual notification of exposure to radiation or radioactive material for each worker, as shown in records maintained by the licensee or registrant under R12-1-419 (D).

**C.** At the request of a worker formerly engaged in work controlled by the licensee or the registrant, each licensee or registrant shall furnish to the worker a report of the worker's exposure to radiation or radioactive material. The report shall be furnished within 30 days from the time the request is made, or within 30 days after the exposure of the individual has been determined by the licensee or registrant, whichever is later; the report shall cover, within the period of time specified in the request, each calendar quarter in which the worker's activities involved exposure to radiation from radioactive material licensed by, or radiation machines registered with, the Agency; and the report shall include the dates and locations of work under the license or registration in which the worker participated during this period.

**D.** Reports to individuals of their exposure to radiation shall be made according to R12-1-446.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3) Amended effective January 2, 1996 (Supp. 96-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1005. Licensee, Registrant, and Worker Representation During Agency Inspection**

**A.** As a condition of licensure or registration, each licensee or registrant shall afford to the Agency, at all reasonable times and without undue delay, an opportunity to inspect materials, machines, activities, facilities, premises, and records.

**B.** During an inspection, the licensee or registrant shall permit Agency inspectors to consult privately with workers as specified in Section R12-1-1006. The licensee or registrant may accompany Agency inspectors during other phases of an inspection.

**C.** A worker authorized to consult with an Agency inspector under R12-1-1006 may authorize another individual to represent the worker's interests during the Agency inspection. The licensee or registrant shall notify the inspectors of the worker's authorization and give the worker's representative an opportunity to accompany the inspectors during the inspection of physical working conditions.

**D.** Each worker's representative shall be routinely engaged in work under control of the licensee or registrant or shall have received instructions under R12-1-1003.

**E.** Different representatives of licensees or registrants and workers may accompany the inspectors during different phases of an inspection if there is no resulting interference with the inspection. However, only 1 worker's representative at a time may accompany the inspectors.

**F.** With the approval of the licensee or registrant and the worker's representative an individual who is not routinely engaged in work under control of the licensee or registrant, for example, a consultant to the licensee or registrant or to the worker's representative, shall be afforded the opportunity to accompany Agency inspectors during the inspection of physical working conditions.

**G.** Notwithstanding the other provisions of this Section, Agency inspectors are authorized to refuse to permit accompaniment by any individual who deliberately interferes with a fair and orderly inspection. With regard to any area containing proprietary information the worker's representative for that area shall be an individual previously authorized by the licensee or registrant to enter that area. With regard to areas containing information classified by an agency of the U.S. Government in the interest of national security, any individual who accompanies an inspector may have access to such information only if authorized by the classifying agency.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1006. Consultation with Workers During Inspections**

**A.** A licensee or registrant shall afford Agency inspectors talking to a licensee or registrant representative the opportunity to consult privately with workers concerning matters of occupational radiation protection and other matters related to applicable provisions of Agency rules, licenses, and registrations to the extent the inspectors deem consultation necessary for conducting an effective and thorough inspection.

**B.** During the course of an inspection, any worker may privately bring to the attention of the inspectors, either orally or in writing, any past or present condition which the worker has reason to believe may have contributed to or caused any violation of the Act, these rules, or a license or registration condition, or any unnecessary exposure of an individual to radiation from licensed radioactive material or a registered radiation machine under the licensee's or registrant's control. If this notification is in writing, the worker shall comply with the requirements of R12-1-1007(A).

**C.** The provisions of R12-1-1006(B) shall not be interpreted as authorization to disregard instructions required by R12-1-1003.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1007. Inspection Requests by Workers**

**A.** Any worker or representative of workers who believes that a violation of the Act, these rules, license, or registration conditions exists, or has occurred with regard to radiological working conditions in which the worker is engaged, may request an inspection of the facility by the Agency. Any request shall be in writing, addressed to the Director, set forth the specific grounds for the request, and be signed by the worker or representative of the workers. The Agency shall provide a copy to the licensee or registrant no later than at the time of inspection except that, upon the request of the worker, the Agency shall protect the worker's name and the name of individuals referred to in the request to the extent authorized by law, except for good cause shown.

**B.** If, upon receipt of a request for inspection, the Agency's Director deter mines that there are reasonable grounds to believe that the alleged violation exists or has occurred, the

Director shall initiate an inspection as soon as practicable, to determine if the alleged violation exists or has occurred. Inspections performed under this subsection need not be limited to matters referred to in the complaint.

**C.** A licensee or registrant shall not discharge or in any manner discriminate against any worker because the worker has filed any complaint or caused to be instituted any proceeding under these rules or has testified or is about to testify in the instituted proceeding or because the worker exercises on behalf of the worker or others, any option afforded by this Article.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1008. Inspection not Warranted; Review**
If the Agency determines, with respect to a complaint under R12-1-1007, that an inspection is not warranted or there are no reasonable grounds to believe that a violation exists or has occurred, the Agency shall notify the complainant in writing of the determination. The complainant may obtain review of the determination by submitting a written request for hearing to the Agency. The Agency shall provide for a hearing before the Radiation Regulatory Hearing Board under 12 A.A.C. 1, Article 12 and A.R.S. Title 41, Chapter 6, Article 1.

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**Exhibit A. Form ARRA-6 (1993) Notice to Employees**
**ARRA-6 (1993) ARIZONA RADIATION REGULATORY AGENCY**

# NOTICE TO EMPLOYEES

**STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION; NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS; INSPECTIONS**

In Article 4 of the Arizona Radiation Regulatory Agency (ARRA) rules for the Control of Ionizing Radiation, the Arizona Radiation Regulatory Agency has established standards for your protection against radiation hazards. In Article 10 of the rules for the Control of Ionizing Radiation, the Arizona Radiation Regulatory Agency has established certain provisions for the options of workers engaged in work under an ARRA license or registration.

**YOUR EMPLOYER'S RESPONSIBILITY**

Your employer is required to -

1. Apply these rules to work involving sources of ionizing radiation.
2. Post or otherwise make available to you a copy of the Arizona Radiation Regulatory Agency rules, licenses, and operating procedures which apply to work you are engaged in, and explain their provisions to you.
3. Post notice of violation involving radiological working conditions, proposed imposition of civil penalties, and orders.

**YOUR RESPONSIBILITY AS A WORKER**

You should familiarize yourself with those provisions of the Arizona Radiation Regulatory Agency rules and the operating procedures which apply to the work you are engaged in. You should observe their provisions for your own protection and protection of your co-workers.

**WHAT IS COVERED BY THESE RULES**

1. Limits on exposure to radiation and radioactive material in restricted and unrestricted areas.
2. Measures to be taken after accidental exposure;
3. Personnel monitoring, surveys, and equipment;
4. Caution signs, labels, and safety interlock equipment;
5. Exposure records and reports;
6. Options for workers regarding ARRA inspections; and
7. Related matters.

**REPORTS ON YOUR RADIATION EXPOSURE HISTORY**

1. The Arizona Radiation Regulatory Agency rules require that your employer give you a written report if you receive an exposure in excess of any applicable limit set forth in the rules or in the license. The basic limits for exposure to employees are set forth in Article 4 of the rules. These Sections specify limits on exposure to radiation and exposure to concentrations of radioactive material in air and water.
2. If you work where personnel monitoring is required, and if you request information on your radiation exposures,
   a. Your employer must give you a written report, upon termination of your employment, of your radiation exposures; and
   b. Your employer must advise you annually of your exposure to radiation.

**INSPECTIONS**

All licensed or registered activities are subject to inspection by representatives of the Arizona Radiation Regulatory Agency. In addition, any worker or representative of workers who believes that there is a violation of the regulations issued thereunder, or the terms of the employer's license or rules with regard to radiological working conditions in which the worker is engaged, may request an inspection by sending a notice of the alleged violation to the Arizona Radiation Regulatory Agency. The request must set forth the specific grounds for the notice and must be signed by the worker on his own behalf or as a representative of the workers. During inspections, ARRA inspectors may confer privately with workers, and any worker may bring to the attention of the inspectors any past or present condition which he believes contributed to or caused any violation as described above.

**INQUIRIES**

Inquiries dealing with the matters outlined above can be sent to the:

**ARIZONA RADIATION REGULATORY AGENCY**

**POSTING REQUIREMENT**

IN ACCORDANCE WITH A.A.C. R12-1-1002, COPIES OF THIS NOTICE SHALL BE POSTED IN SUCH A MANNER TO PERMIT EMPLOYEES WORKING IN OR FREQUENTING ANY PORTION OF A RESTRICTED AREA, USED FOR ACTIVITIES LICENSED OR REGISTERED PURSUANT TO ARTICLE 2 OR ARTICLE 3 OF THE AGENCY'S RULES, TO OBSERVE A COPY OR COPIES ON THE WAY TO OR FROM THEIR WORK AREA.

## ARTICLE 11. REPEALED

**R12-1-1101. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective June 13, 1997 (Supp. 97-2).

**R12-1-1102. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective June 13, 1997 (Supp.

**R12-1-1103. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective June 13, 1997 (Supp. 97-2).

**R12-1-1104. Repealed**

**Historical Note**
Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective June 13, 1997 (Supp. 97-2).

## ARTICLE 12. ADMINISTRATIVE PROVISIONS

**R12-1-1201. Criteria for Determining Timeliness**

**A.** Any application, request, response, or report required by any rule, order, application, or letter shall be considered timely if it is postmarked on or before the due date, or hand-delivered to the Agency office before 5 p.m. on the due date. If the due date falls on a Saturday, a Sunday, or a legal holiday, the due date is extended to the end of the next day that is not a Saturday, a Sunday, or legal holiday.

**B.** As used in this Article, "working days" are all days other than Saturdays, Sundays, or legal holidays prescribed in A.R.S. § 1-301.

**Historical Note**
Adopted effective June 23, 1983 (Supp. 83-3). Section repealed, new Section adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1202. Administrative Hearing Procedures**

**A.** Hearings on the appeal of notices of violation, orders of the Director, or the appeal of proposed licensing or registration actions by the Agency shall be held before the Radiation Regulatory Hearing Board or a hearing officer appointed by the Board.
1. If a hearing is held before the Board or if a hearing officer has not been appointed, the Chairperson of the Board or another person designated by the Chairperson shall act as the hearing officer.
2. If the Chairperson determines that the hearing is to be held before an appointed hearing officer, the Chairperson shall confer with the hearing officer, the Agency's designated assistant Attorney General, and the licensee or registrant in establishing the time and place of the hearing. The Chairperson shall also confer with the members of the Board before establishing the time and place of a hearing to be held before the Board itself.

**B.** Except where statutes or provisions of this Chapter applicable to hearings before the Board specify otherwise, all hearings shall be governed by the Administrative Procedure Act, A.R.S. §§ 41-1061 through 41-1066. In the absence of other authority, the Arizona Rules of Civil Procedure shall be followed to the extent practicable.

**C.** The hearing officer shall rule on all motions, hold prehearing or other conferences for purposes of clarifying procedural steps or legal or factual issues, conduct the hearing, grant continuances, and otherwise rule on procedural matters and regulate the course and manner of the hearing.

**D.** All motions and rulings shall be in writing, except those made during the hearing may be oral. The results of all conferences shall be incorporated in the record. All hearings shall be recorded.

**E.** If it is necessary that the hearing officer or Board visit the site of an alleged violation or activity to be licensed by the Agency in order to supplement testimonial or documentary evidence presented at the hearing, the purpose of the visit and all pertinent observations shall be entered into the record.

**F.** A person may be represented by counsel at any proceeding.

**G.** All testimony shall be under oath or affirmation.

**Historical Note**
Adopted effective June 23, 1983 (Supp. 83-3). Section repealed, new Section adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1203. Procedures for Rulemaking Public Hearings**

**A.** Hearings on proposed rulemaking by the Agency shall be held before the Director or another person designated by the Director to act as the hearing officer.

**B.** All hearings shall be governed by the Administrative Procedure Act, A.R.S. §§ 41-1021, 41-1021.01 through 41-1025, 41-1028, 41-1029, and 41-1031.

**C.** The hearing shall be recorded and shall be retained as part of the record of the rulemaking.

**D.** A written summary of the comments presented shall be prepared along with a written response to the comments by the Agency staff and retained with the record of the rulemaking.

**E.** The request for hearing shall identify the rule involved or propose a new rule.

**Historical Note**
Adopted effective June 23, 1983 (Supp. 83-3). Section repealed, new Section adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1204. Initiation of Administrative Hearings**

**A.** An administrative hearing shall be initiated by the Director or commenced in response to the request of any person directly affected by an order of the Director or a proposed licensing or registration action by the Agency.

**B.** If the Director initiates an administrative hearing pursuant to R12-1-1220, the order may incorporate a notice of hearing; otherwise a notice of any hearing and the notice of violation shall be issued separately.

**C.** For any hearing on a proposed licensing or registration action, only a notice of hearing shall be issued.

**D.** A notice of hearing shall specify the time, place, and nature of the hearing and may include specification of the legal authority and jurisdiction under which the hearing is to be held; the particular sections of the statutes, rules, or license conditions involved; the amount of the penalty and other sanctions proposed, if appropriate; and a statement of matters asserted and issues involved.

**E.** A hearing may be requested by filing a written request for hearing with the Director within the time limit specified in the pertinent order or notice. A request for hearing on a regulatory action not subject to public notice requirements may be filed at any time, provided that a request to reconsider a licensing or registration action shall be filed within 30 days of the issuance of the licensing or registration action.
1. The request for a hearing to appeal an order shall identify the order which the person desires to appeal and include a statement reciting the matters asserted, issues involved, and the applicable statutes or rules. The Agency shall respond within 30 calendar days to the person and forward the request and response to the Chairperson of the Board.
2. The request for a hearing to appeal a licensing or registration action shall identify the action appealed. The Agency shall respond within 30 calendar days to the person and forward the request and response to the Chairperson of the Board.
3. The request for hearing shall include a statement identifying the interest claimed to be affected by the action. If a statement is not provided or is clearly insufficient, the Chairperson may deny the request and notify the person of that action.
4. If the request for hearing is denied for insufficiency, the requestor shall have 5 days from the notice of denial within which to file an amended request for hearing. The amended request shall refer back to the original request for hearing.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1205. Intervention in Administrative Hearings; Director as a Party**

**A.** Any person may submit a timely motion to intervene in a proceeding when an unconditional right to intervene is granted by law or when the applicant claims an interest to any property or transaction affected by the proceeding.

**B.** A motion to intervene shall be in writing and shall state the reason why the applicant should be allowed to intervene. If the applicant claims an interest in property or in a transaction affected by the proceeding, the applicant must show that the result of the proceeding may as a practical matter impair or impede protection of that interest.

**C.** The motion shall be served upon the hearing officer or the Director at least 5 working days before the hearing. No appli-

cation for leave to intervene shall be granted if by doing so the issues will be unduly broadened.

**D.** When 2 or more persons have substantially like positions, the hearing officer may declare them a class of interested persons for purposes of the hearing. The members of a class shall designate 1 person to be spokesperson for the class. More than 1 class may be established for a hearing.

**E.** The Director is party to all administrative hearings.

**Historical Note**
Adopted effective June 23, 1983 (Supp. 83-3). Section repealed, new Section adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1206. Decisions of the Hearing Officer and the Board in Administrative Hearings**

**A.** As soon as is practical after the conclusion of an administrative hearing, the hearing officer shall prepare and circulate written findings of fact and conclusions of law and a recommended decision. Each of the parties shall be given 15 calendar days within which to respond.

**B.** The hearing officer may revise or supplement the original findings, conclusions, and recommended decision in light of responses made or may submit the findings, conclusions, recommended decisions, and a copy of all responses to the Board along with a legible or audible copy of the record and all documentary evidence admitted.

**C.** A copy of any revised or supplemental findings, conclusions, or recommended decision shall be given to all parties.

**D.** The Board shall render a decision as promptly as possible but not later than 90 calendar days following receipt of the hearing officer's submittal.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1207. Rehearings and Reviews of Decisions in Administrative Hearings**

**A.** Any party who is aggrieved by a decision of the Board may file with the Board, not later than 15 working days after issuance of the decision, a written motion for rehearing or review of the decision specifying the particular grounds therefor. A motion for rehearing may be amended at any time before it is ruled upon by the Board.

**B.** A response to a motion for rehearing may be filed by any other party within 10 working days after service of the motion or amended motion. The Board may require filing of written briefs upon the issues raised in the motion and may provide for oral argument.

**C.** A rehearing or review of the decision may be granted for any of the following causes materially affecting the moving party's rights:

1. Irregularity in the administrative proceedings of the Board or its hearing officer or the prevailing party, or any order or abuse of discretion, whereby the moving party was deprived of a fair hearing;
2. Misconduct of the Board or its hearing officer or the prevailing party;
3. Accident or surprise which could not have been prevented by ordinary prudence;
4. Newly discovered material evidence which could not with reasonable diligence have been discovered and produced at the original hearing;
5. Excessive or insufficient penalties;
6. Error in the admission or rejection of evidence or other errors of law occurring at the administrative hearing;
7. That the decision is not justified by the evidence or is contrary to law.

**D.** The Board may affirm or modify the decision or grant a rehearing to all or any of the parties and on all or part of the issues for any of the reasons set forth above. An order granting a rehearing shall specify with particularity the ground or grounds on which the rehearing is granted, and the rehearing shall cover only matters so specified.

**E.** Not later than 15 working days after a decision is rendered, the Board may, on it own initiative, order a rehearing or review of its decision for any reason for which it might have granted a rehearing on motion of a party. After giving the parties notice and an opportunity to be heard on the matter, the Board may grant a motion for rehearing for a reason not stated in the motion. In either case, the order granting such a rehearing shall specify the grounds therefor.

**F.** When a motion for rehearing is based upon affidavits, they shall be served with the motion. An opposing party may, within 30 calendar days after such service, serve opposing affidavits, which period may be extended by the Board for an additional period if good cause is shown and written stipulation is received from both parties. The Board may permit reply affidavits.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1208. Judicial Review**

Any application for judicial review shall be made within the time limit specified in A.R.S. § 12-904.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**R12-1-1209. Notice of Violation**

**A.** Except as provided in R12-1-1220, the Agency shall issue a notice of violation and provide time, as specified in R12-1-1210, for the registrant or licensee to respond before the Director issues any order to modify, suspend, or revoke a license or registration, or to impose a civil penalty.

**B.** The notice shall specify the severity level and circumstances of the alleged violation, and the particular statute, rule, or license condition violated. The notice shall also specify the category of the registration or license.

**C.** The notice shall also specify the License or Registration Division any proposed sanction and the amount of any proposed civil penalty, unless the civil penalty is waived authorized in R12-1-1216(C).

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1210. Response to Notice of Violation**

**A.** Except as provided in subsection (D), within 30 calendar days of the date of the notice, or other time specified in the notice, the person charged with the violation shall submit a written response which includes a description of:

1. The actions taken to achieve compliance and the results of the actions;
2. The actions which are proposed to be taken and the date when full compliance is expected to be achieved; and
3. If the violation is a repeat violation, why corrective actions taken previously did not prevent the violation from recurring and why the new actions will be effective.

**B.** If the person charged with a violation submits a timely response, the Director, in consideration of the answer and the severity level of the violation, shall do 1 of the following:

1. Issue an initial order conditionally imposing the full amount of the proposed civil penalty and any other sanc-

tions proposed;
2. Issue an initial order conditionally mitigating or waiving the proposed civil penalty under R12-1-1214(B);
3. Waive the penalty as authorized under R12-1-1216(C);
4. Enter into a consent agreement as authorized under R12-1-1222.

**C.** If an adequate and timely response is not received to the notice, the Director shall issue an initial order conditionally imposing any or all sanctions and civil penalties proposed in the notice of violation. If no civil penalty was proposed, the initial order may impose the base civil penalty scheduled in R12-1-1216.

**D.** Response to the notice of violation as otherwise required in this Section may be waived by the Agency, if the Agency determines that a response is not required.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1211. Initial Orders**

**A.** Initial orders are valid for 30 calendar days after the date of the order, or until the other time specified in the order, during which time the person charged may:
1. Pay the civil penalty proposed and accept any proposed sanction, or
2. Request a hearing before the Board.

**B.** If a timely request for a hearing is not received, the order shall become final.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1212. Request for Hearing in Response to an Initial Order**

**A.** In a request for a hearing, a person charged with a violation shall include a statement of the issues and the explanations and the arguments supporting denial of the violation or demonstrating extenuating circumstances, errors in notice, or any other reasons for not imposing the civil penalty, sanction, or both.

**B.** The statement shall identify all issues. The failure to include an issue may, at the option of the Board, foreclose consideration of that issue. If a statement is not provided or is insufficient, the Board may summarily determine the issues.

**C.** The person charged may admit the violation and request a reduction of the proposed civil penalty based on extenuating circumstances.

**D.** The person charged may waive oral proceedings and request dismissal of any or all of the charged violations, reduction of the civil penalties, or modification of any other imposed sanction based on consideration by the Board of the written statement.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1213. Severity Levels of Violations**

**A.** The following violations are classified as severity level I violations:
1. Any failure, malfunction, or insufficiency of a safety system which may result in
   a. An individual exposure;
   b. A concentration of radionuclides; or
   c. A radiation level,in excess of 10 times the limits specified in 12 A.A.C.1, or 10 times the prescribed therapeutic patient dose.
2. Any inaccurate or incomplete information that is intentionally provided by a licensee or registrant official, and if the information had been complete and accurate at the time it was provided, would have likely resulted in action such as an immediate order required to protect the public health and safety.
3. Any information that the Agency requires be kept by a licensee or registrant that is incomplete or inaccurate because of falsification by or with the knowledge of a licensee or registrant official, and if the information had been complete and accurate at the time it was reviewed by the Agency, would have likely resulted in action such as an immediate order required to protect the public health and safety.
4. Any concealment or attempted concealment of a severity level I violation of the Act, 12 A.A.C. 1, or a license condition. This is a separate violation in addition to the original violation.
5. Any concealment or attempted concealment of a severity level II violation of the Act, 12 A.A.C. 1, or a license condition. This violation shall increase the severity level of the original violation by 1 level.
6. For the purposes of subsections (2) and (3) above the term “licensee or registrant official” means the owner, a partner, a corporate officer, a radiation safety officer, the individual signing an application for a license or registration, or the chairman of any radiation safety committee supervising the radiation safety program of the licensee or registrant.

**B.** The following violations are classified as severity level II violations:
1. Any failure, malfunction, or insufficiency of a safety system which may result in:
   a. An individual exposure,
   b. A concentration of radionuclides, or
   c. A radiation level,in excess of 2 times the limits specified in 12 A.A.C. 1, or 2 times the prescribed therapeutic patient dose.
2. Any attempt to prevent an Agency inspection.
3. Any concealment or attempted concealment of a severity level III violation of the Act, 12 A.A.C. 1, or a license condition by a licensee or registrant official as defined in subsection (A)(6). This violation shall increase the severity level of the original violation by 1 level.
4. Significant information provided and designated by a licensee or registrant and not previously provided to the Agency because of careless disregard on the part of a licensee official or registrant.

**C.** The following violations are classified as severity level III violations:
1. Any failure, malfunction, or insufficiency of a safety system, or loss of control over a radiation source, which may result in:
   a. An individual exposure,
   b. A concentration of radionuclides, or
   c. A radiation level in excess of the limits specified in 12 A.A.C. 1, or 20% higher than the prescribed therapeutic patient dose.
2. Any concealment or attempted concealment of a severity level IV or V violation of the Act, 12 A.A.C. 1, or a registration or license condition. This violation shall increase the severity level of the original violation by 1 level.

3. Any violation of the safety requirements for the use, storage, disposal, or the preparation for transportation of sources of radiation, as prescribed in the Act, 12 A.C.C. 1, or in a license or registration condition, provided the violation does not meet the criteria for a severity level I or II violation and the licensee or registrant does not maintain a radiation protection program meeting the requirements of R12-1-407.
4. Any factually incorrect statement upon which the Agency relied or would have relied in consideration of any action.
5. Any unlawful attempt to interfere with the progress of an inspection by the Agency.
6. The acquisition of any source of radiation without the applicable current registration or license, unless otherwise authorized by these rules; or use of the source outside the scope of the current registration or license.
7. The continued use of sources of radiation after April 1, if the annual fee has not been paid for the current year.

**D.** The following violations are classified as severity level IV violations:
1. Any violation of R12-1-407;
2. Any violation of the safety requirements for the use, storage, disposal, or preparation for transportation of sources of radiation, prescribed in the Act, 12 A.A.C. 1, or in a license or registration condition, provided the violation does not meet the criteria for a severity level I, II or III violation;
3. Failure to maintain records of mammography quality control tests, listed in Appendix B of 12 A.A.C. 1, Article 6;
4. Any failure to comply with the reporting requirements in the Act or 12 A.A.C. 1.

**E.** The following violations are classified as severity level V violations:
1. Failure of a registrant or a licensee to comply with the record keeping requirements of:
   a. The Act;
   b. 12 A.A.C. 1; or
   c. A registration or facility certification, or license condition, provided that all safety requirements prescribed in the Act, 12 A.A.C. 1, or in a license or registration condition are met or otherwise demonstrated.
2. If compliance with all safety requirements cannot be demonstrated by the registrant or licensee the failure to comply with the record keeping requirements is classified as a level IV violation.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1214. Mitigating Factors**

**A.** The Agency may refrain from issuing a Notice of Violation for Severity Level IV or V violations identified by the registrant or licensee provided the severity level IV or V violations are identified in an inspection report, the report includes a brief description of the corrective action, and the violation meets all of the following criteria:
1. It was identified by the licensee, as a result of an event discovered by the licensee or registrant;
2. It was not a violation that could reasonably be expected to have been prevented by the licensee's or registrant's corrective action for a previous violation or a previous licensee or registrant finding;
3. It was or will be corrected within a reasonable time, by specific corrective action committed to by the registrant or licensee by the end of the inspection. The corrective action shall include comprehensive measures that will prevent reoccurrence;
4. It was not a willful violation or, if it was willful:
   a. The violation was reported to the Agency;
   b. The violation appears to be the isolated action of an employee without management involvement and the violation was not caused by lack of management oversignt;
   c. Significant remedial action was taken by the licensee or registrant, demonstrating the seriousness of the violation to all affected personnel.

**B.** The Director may:
1. Reduce the scheduled civil penalty, including any augmentation, by 50% for the discovery, remedy, and voluntary reporting of a severity level I or II violation by the registrant or licensee; or
2. Waive the scheduled civil penalty, including augmented civil penalties, for the discovery, remedy, and voluntary reporting of a severity level III, IV, or V violation by the registrant or licensee. For the purposes of this rule, "voluntary reporting" means that the registrant or licensee has notified the Agency of a violation, the reporting of which may or may not be required under 12 A.A.C. 1.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1215. License and Registration Divisions**

**A.** Each registrant or license type is classified into 1 of 3 administrative sanction divisions.
1. Division I licenses and registrations:
   Broad Academic Class A
   Broad Academic Class B
   Broad Academic Class C
   Broad Industrial Class A
   Broad Medical
   Class C Laser Facility
   Distribution
   Fixed Gauge Class A
   Industrial Radiography Class A
   Low Level Radioactive Waste Disposal Site
   Major Accelerator Facility
   Medical Materials Class A
   Medical Teletherapy
   Nuclear Laundry
   Nuclear Pharmacy
   NORM Commercial Disposal Site
   Open Field Irradiator
   Secondary Uranium Recovery
   Waste Processor Class A
   Well Logging
   X-Ray Machine Class A
2. Division II licenses and registrations:
   Broad Industrial Class B
   Broad Industrial Class C
   Class B Industrial Radiofrequency Facility
   Class B Laser Facility
   Class C Industrial Radiofrequency Facility
   Fixed Gauge Class B
   Health Physics Class A
   Industrial Radiation Machine
   Industrial Radiography Class B

Laser Light Show
Limited Academic
Medical Laser
Medical Materials Class B
Medical Radiofrequency Device Facility
NORM Commercial Disposal Site
Medical Imaging Facility
Research and Development
Self Shielded Irradiator
Tanning Facility
Waste Processor Class B
X-Ray Machine Class B

3. Division III licenses and registrations:
Class A Laser Facility
Class A Industrial Radiofrequency Facility
Depleted Uranium
Gas Chromatograph
General Depleted Uranium
General Industrial
General Medical
General Veterinary Medicine
Health Physics Class B
Laboratory
Leak Detector
Limited Industrial
Medical Materials Class C
Other Radiation Machine
Portable Gauge
Possession Only
Radioactive waste transfer-for-disposal
Reciprocal
Unclassified
Veterinary Medicine
X-ray Machine Class C

**B.** Any person required by the Act to register the use of a general license with the Agency, or to obtain a specific license from the Agency, is considered a licensee of the appropriate type notwithstanding the failure of the person to register or obtain a license.

**C.** Out-of-state licensees issued a general license for reciprocal recognition under R12-1-321 are classified in accordance with an appropriate specific license type defined in R12-1-1302.

**D.** For administrative purposes, the following individuals are classified with the Division III licensees and registrants in subsection (A)(3):
1. Any individual not required to register the use of a general license;
2. Any individual not required to obtain a specific license;
3. Any individual not required to register a source of radiation who violates the Act or 12 A.A.C. 1; and
4. Any x-ray machine servicing registrant.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1216. Base Schedule of Civil Penalties**

**A.** Except as augmented by R12-1-1217, the schedule of civil penalties is as follows:
1. Severity level I violations:
   a. Division I registration or license -- $4,000;
   b. Division II registration or license -- $3,000;
   c. Division III registration or license -- $2,000.
2. Severity level II violations:
   a. Division I registration or license -- $3,000;
   b. Division II registration or license -- $2,000;
   c. Division III registration or license -- $1,000.
3. Severity level III violations:
   a. Division I registration or license -- $2,000;
   b. Division II registration or license -- $1,000;
   c. Division III registration or license -- $500.
4. Severity level IV violations:
   a. Division I registration or license -- $1,000;
   b. Division II registration or license -- $500;
   c. Division III registration or license -- $250.
5. Severity level V violations:
   a. Division I registration or license -- $500,
   b. Division II registration or license -- $250,
   c. Division III registration or license -- $125.

**B.** Payment of civil penalties for severity level I and severity level II violations may not be avoided merely by rectifying the condition; however, the Board may mitigate or waive the penalty upon determining a violation meets all of the following:
1. It was not a violation that could reasonably be expected to have been prevented by the licensee's or registrant's corrective action for a previous violation or a previous licensee or registrant finding;
2. It was or will be corrected within the time given for corrections, by specific corrective action committed to by the licensee or registrant by the end of the inspection, which includes immediate and comprehensive measures to prevent recurrence;
3. It was not a willful violation.

**C.** The Director or Board shall waive payment of penalties for severity level III through severity level V violations provided:
1. The violation is not subject to augmentation under R12-1-1217; and
2. The registrant or licensee submits a timely and adequate response to the notice; rectifies the conditions which appear to have caused the violation; and complies with the Act, 12 A.A.C. 1, registration, and license conditions.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1217. Augmentation of Civil Penalties**

**A.** A continuing violation is, for the purposes of calculating the proposed civil penalty, considered a separate violation for each day it continues. The 2nd (or successive) day of a continuing violation is not considered a repeat violation of the violation occurring on the 1st day.

**B.** If a 2nd severity level I violation is committed within 5 years, the Agency shall increase the base scheduled civil penalty by 100%, provided the license is not revoked under R12-1-1219.

**C.** If a 2nd severity level II violation is committed within a period of 5 years, the Agency shall increase the base scheduled civil penalty by 50%, provided the registration or license is not revoked under R12-1-1219.

**D.** If a severity level III violation is repeated within 5 years, the Agency shall increase the base scheduled civil penalty by 50%. If the same severity level III violation is repeated a 2nd time within 5 years, the base scheduled civil penalty shall be increased by 100%, provided the registration or license is not revoked under R12-1-1219.

**E.** If a severity level IV violation is repeated within 5 years, the Agency shall propose the base scheduled civil penalty.
1. If the same violation occurs 3 times within 5 years, the Agency shall increase the base scheduled civil penalty by 50%.
2. If the same violation occurs 4 times within 5 years, the Agency shall increase the base scheduled civil penalty by

100%, provided the registration or license is not revoked under R12-1-1219.

**F.** If greater than 3 severity level V violations are observed during 2 consecutive inspections, the Agency shall impose a civil penalty for each violation. The base civil penalty for each violation is the base scheduled civil penalty assessed for a severity level V violation. If the inspection shows repetition of a violation the base civil penalty for each repeat violation is the base scheduled civil penalty assessed for a severity level IV violation. Subsection (E) does not apply to penalties under this subsection.

**G.** Other rights and procedures are not affected by the repeat nature of a violation.

**H.** A person may avoid the penalties in subsections (D) and (E) by demonstrating to the Director in the response to the penalty that the violation meets all of the following criteria:

1. It was not a violation that could reasonably be expected to have been prevented by the licensee's or registrant's corrective action for a previous violation or a previous licensee or registrant finding;
2. It was or will be corrected within the time given for correction, by specific corrective action committed to by the licensee or registrant by the end of the inspection, which includes immediate and comprehensive measures to prevent recurrence;
3. It was not a willful violation.

**I.** Notwithstanding any other provision of this section, the Agency shall not impose a penalty that exceeds a maximum of $5,000 for each violation for each day up to a maximum of $25,000 for any 30-day period.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1218. Payment of Civil Penalties**

**A.** A person shall pay civil penalties imposed under this Article by certified check or money order payable to the Agency and mailed or delivered to the Agency at the address shown on the notice of violation.

**B.** Payment of a civil penalty is due 30 calendar days after the effective date of the final order imposing the civil penalties, unless an alternate payment schedule is agreed upon before that date. A payment schedule shall not extend beyond 1 year after the due date.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1219. Additional Sanctions - Show Cause**

**A.** If a severity level I violation is repeated or if any 2nd severity level I violation is committed within 10 years, the Agency shall require the registrant or licensee to show cause why the license should not be suspended or revoked.

**B.** If any 2nd severity level II violation is committed within 5 years, or if a severity level II violation involving radioactive effluent releases, excessive radiation levels, or radiation overexposure to an individual is committed within 5 years of a similar severity level I violation, the Agency shall require the registrant or licensee to show cause why the license should not be suspended or revoked.

**C.** If repeated or different severity level III violations are committed on 3 separate occasions within any 5-year period, the Agency may require the registrant or licensee to show cause why the license should not be suspended or revoked.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1220. Escalated Enforcement**

**A.** The Director may issue an order to suspend or modify a registration or license, or impound a radiation source for:

1. Any severity level I violation; or
2. Any of the following occurring within a 5-year period:
   a. A repeat severity level II violation,
   b. A different 2nd severity level II violation, or
   c. A severity level II violation after a severity level I violation.

**B.** The Director may issue an order impounding the radiation source or suspending or modifying the registration or license upon determining that conditions exist which cause a potential for a severity level I or severity level II violation.

**C.** The Agency shall hold hearings according to A.R.S. § 30-688.

**D.** An order to impound a radiation source, or an order to suspend, or modify a registration or a license shall remain in effect until the order is suspended or modified by the Board according to A.R.S. § 30-688.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1221. Reserved**

**R12-1-1222. Enforcement Conferences**

**A.** An enforcement conference consists of a meeting in person between management personnel of the registrant or licensee and the Agency.

**B.** The enforcement conference is informal; however, the Agency shall make a record of items discussed and decisions reached. Statements made at the conference shall not be introduced in evidence at a formal hearing unless all parties have consented.

**C.** Based on the results of the conference, the Agency may:

1. Dismiss the notice of violation;
2. Enter into a consent agreement; or
3. Continue with, or initiate, formal proceedings.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).
Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1223. Registration and Licensing Time-frames**

The Agency shall perform an administrative completeness review and substantive review of an application for a new or renewal license or registration; or an amendment to a license or registration within the time-frames provided in Table A. The Agency shall review an application for an amendment to an existing license or registration which changes the license category listed in R12-1-1306, using the time-frames specified for the requested category.

**Historical Note**
Adopted effective December 9, 1998 (Supp. 98-4).

**Table A. Registration and Licensing Time-frames**

**REGISTRATION AND LICENSING TIME-FRAMES**

| License or Registration category in R12-1-1306 | Administrative Completeness Review Time-frame, in days | Substantive Review Time-frame, in days | Overall Time-frame, in days |
|---|---|---|---|
| A1 | 90 | 30 | 120 |
| A2 | 90 | 30 | 120 |
| A3 | 90 | 30 | 120 |
| A4 | 60 | 30 | 90 |
| B1 | 90 | 30 | 120 |
| B2 | 90 | 30 | 120 |
| B3 | 90 | 30 | 120 |
| B4 | 90 | 30 | 120 |
| B5 | 90 | 30 | 120 |
| B6 | 40 | 20 | 60 |
| C1 | 60 | 30 | 90 |
| C2 | 60 | 30 | 90 |
| C3 | 60 | 30 | 90 |
| C4 | 60 | 30 | 90 |
| C5 | 60 | 30 | 90 |
| C6 | 60 | 30 | 90 |
| C7 | 60 | 30 | 90 |
| C8 | 90 | 30 | 120 |
| C9 | 60 | 30 | 90 |
| C10 | 40 | 20 | 60 |
| C11 | 90 | 30 | 120 |
| C12 | 90 | 30 | 120 |
| C13 | 90 | 30 | 120 |
| C14 | 90 | 30 | 120 |
| C15 | 90 | 30 | 120 |
| C16 | 90 | 30 | 120 |
| C17 | 90 | 30 | 120 |
| D1 | 90 | 30 | 120 |
| D2 | 90 | 30 | 120 |
| D3 | 90 | 30 | 120 |
| D4 | 40 | 20 | 60 |
| D5 | 40 | 20 | 60 |
| D6 | 90 | 30 | 120 |
| D7 | 40 | 20 | 60 |
| D8 | 60 | 30 | 90 |
| D9 | 90 | 30 | 120 |
| D10 | 90 | 30 | 120 |
| D11 | 1095 | 365 | 1460 |
| D12 | 730 | 180 | 910 |
| D13 | 365 | 90 | 455 |

| | | | |
|---|---|---|---|
| D14 | 90 | 30 | 120 |
| D15 | 40 | 20 | 60 |
| D16 | 20 | 10 | 30 |
| D17 | 40 | 20 | 60 |
| D18 | 90 | 30 | 120 |
| D19 | 365 | 120 | 485 |
| E1 | 40 | 20 | 60 |
| E2 | 40 | 20 | 60 |
| E3 | 40 | 20 | 60 |
| E4 | 40 | 20 | 60 |
| E5 | 90 | 30 | 120 |
| E6 | 40 | 20 | 60 |
| E7 | 40 | 20 | 60 |
| E8 | 40 | 20 | 60 |
| E9 | 40 | 20 | 60 |
| E10 | 20 | 10 | 30 |
| E11 | 40 | 20 | 60 |
| E12 | 40 | 20 | 60 |
| E13 | 40 | 20 | 60 |
| E14 | 40 | 20 | 60 |
| E15 | 40 | 20 | 60 |
| E16 | 40 | 20 | 60 |
| E17 | 90 | 30 | 120 |

Footnote: “administrative completeness review time-frame”; “substantive review time frame”, and “overall time-frame” are defined in A.R.S. § 41-1072.

**Historical Note**

Adopted effective December 9, 1998 (Supp. 98-4).

## ARTICLE 13. LICENSE AND REGISTRATION FEES

### R12-1-1301. Definition

“Combined” means the Agency has granted authorized activities contained in 2 or more license types in a single license document, requiring the payment of a single license fee for the more expensive license of the planned combination.

**Historical Note**

Adopted effective November 19, 1982 (Supp. 82-6). Amended effective November 28, 1983 (Supp. 83-6). Amended subsection (B) and added a new subsection (C) effective November 28, 1986 (Supp. 86-6). Section repealed, new Section adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

### R12-1-1302. License and Registration Categories

**A.** Category A licenses are those specific licenses which authorize a school, college, university, or other teaching facility to possess and use radioactive materials for instructional or research purposes.

1. A broad academic class A license is any category A license which meets the specifications of R12-1-310(A)(1).
2. A broad academic class B license is any category A license other than a broad academic class A license which meets the specifications of R12-1-310(A)(2).
3. A broad academic class C license is any category A license other than a broad academic class A or B license which meets the specifications of R12-1-310(A)(3).
4. A limited academic license is any category A license which authorizes only those radioisotopes, forms, and quantities individually specified in the license.

**B.** Category B licenses are those specific or general licenses which authorize the application of radioactive material or the radiation from it to a human being for medical diagnostic, therapeutic, or research purposes, or the use of radioactive material in medical laboratory testing. Except for a type B6, general medical license, the Agency shall not combine a category B license with a license of any other category.

1. A broad medical license is any category B license which meets the specifications of R12-1-310(A)(1) and meets the requirements of 12 A.A.C. 1, Article 7. A broad medical license may authorize any medical use other than teletherapy.
2. A medical materials class A license is any specific category B license other than a broad medical license, which authorizes the use of radiopharmaceuticals and sealed sources containing radioactive materials for a therapeutic purpose in quantities which require hospitalization of the

patient for radiation safety purposes. The license may authorize other radioactive materials and other medical uses, except teletherapy.

3. A medical materials class B license is any specific category B license which authorizes the diagnostic or therapeutic use, other than teletherapy, of radioactive materials only in limited quantities such that the patient need not be hospitalized for radiation safety purposes.
4. A medical materials class C license is any specific category B license which authorizes possession of specified radioisotopes only in the form of sealed sources for treatment of the eye or skin or for use in diagnostic medical imaging devices.
5. A medical teletherapy license is a specific category B license which solely authorizes radioisotopes in the form of multi-curie sealed sources for use in external beam therapy. The Agency shall not combine a medical teletherapy license with any other type of category B license.
6. A general medical license is a registration of the use of radioactive material pursuant to R12-1-306(E) or R12-1-306(F). A general medical license may be combined into a broad medical, medical materials class A, or medical materials class B license.

**C.** Category C licenses are those specific or general licenses authorizing the use of radioactive materials in any activity other than those authorized by a category A, B, or D license. Except as specifically authorized in this Section, the Agency shall not combine a category C license with any other type of license.

1. A broad industrial class A license is any category C license which meets the specifications of R12-1-310(A)(1). The Agency may combine a broad industrial class A license with any other category C license except industrial radiography, open field irradiator, or well logging licenses.
2. A broad industrial class B license is any category C license other than a broad industrial class A license which meets the specifications of R12-1-310(A)(2). The Agency may combine a broad industrial class B license with any other category C license except industrial radiography, open field irradiator, or well logging licenses.
3. A broad industrial class C license is any category C license other than a broad industrial class A or B license which meets the specifications of R12-1-310(A)(3). The Agency may combine a broad industrial class C license with any other category C license except industrial radiography, open field irradiator, or well logging licenses.
4. A limited industrial license is a specific category C license authorizing the possession of the radioactive materials authorized in R12-1-305(A), or R12-1-306(A), (B), (D) or (G) for uses authorized in those subsections, but in quantities greater than authorized by those subsections.
5. A portable gauge license is a specific category C license which authorizes radioactive materials in the form of sealed sources for use in measuring or gauging devices designed and manufactured to be transported to the location of use. The Agency may combine a portable gauge license with any broad scope industrial license or a fixed gauge class A license.
6. A fixed gauge class A license is a specific category C license which authorizes the possession of 50 or more measuring or gauging devices containing radioactive materials, where each device is permanently mounted for use at a single location.

possession of radioisotopes and their incorporation

7. A fixed gauge class B license is a specific category C license which authorizes the possession of 1 through 49 measuring or gauging devices containing radioactive materials, where each device is permanently mounted for use at a single location.
8. A leak detector license is a specific category C license which authorizes the use of radioisotopes in the form of a gas to test hermetic seals on electronic packages.
9. A gas chromatograph license is a specific category C license which authorizes the use of radioactive materials as ionization sources in gas chromatography or electron capture devices.
10. A general industrial license means a registration of the use of a material, source, or device generally licensed pursuant to R12-1-305 or R12-1-306, except R12-1-305(C), R12-1-306(E), or R12-1-306(F).
11. An industrial radiography class A license is a specific category C license which authorizes industrial radiography using sealed radioisotope sources at specific facilities identified in the license conditions or at temporary field job sites.
12. An industrial radiography class B license is a specific category C license which authorizes industrial radiography using sealed radioisotope sources only at specific facilities identified in the license conditions.
13. An open field irradiator license is a specific category C license authorizing the use of radioisotopes in the form of sealed sources not permanently mounted within a shielding container, for irradiation of materials.
14. A self-shielded irradiator license is a specific category C license authorizing the use radioisotopes in the form of sealed sources for irradiation of materials in a shielding device from which the sources are not removed during irradiation. The Agency may combine a self-shielded irradiator license with any broad industrial broad license.
15. A well logging license is a specific category C license which authorizes the use of radioactive material in sealed or unsealed sources for wireline services or field tracer studies.
16. A research and development license is a specific category C license which authorizes a licensee to utilize radioactive material in unsealed and sealed form for industrial, scientific, or biomedical research, not including administration of radiation or radioactive material to human beings.
17. A laboratory license is a specific category C license which authorizes a licensee to perform specific in-vitro or in-vivo medical or veterinary testing, while possessing quantities of radioactive material greater than the general license quantities authorized in R12-1-306.

**D.** Category D licenses are the following specific radioactive material licenses. Except for type D4, depleted uranium; type D8 and D9, health physics; and type D14, additional facilities licenses, the Agency shall not combine a category D license with any other license.

1. A distribution license is one which authorizes the commercial distribution of radioactive materials or radioisotopes in products to persons holding an appropriate general or specific license. The Agency shall ensure that a distribution license does not:
   a. Authorize distribution of radiopharmaceuticals or distribution to persons exempt from regulatory control; or
   b. Authorize any other use of the radioactive material. An appropriate category C license is required for into products.

2. A nuclear pharmacy license is one which authorizes the preparation, compounding, packaging, or dispensing of radiopharmaceuticals for use by other licensees.
3. A nuclear laundry license is one authorizing the collection and cleaning of items contaminated with radioactive materials.
4. A depleted uranium license is one which authorizes the use of depleted uranium as a concentrated mass or as shielding for other radiation sources within a device or machine. The Agency may combine a depleted uranium license with a medical teletherapy license; a broad industrial A, B or C license; a portable gauge license; a fixed gauge class A or B license; an industrial radiography class A or B license; or a self-shielded irradiator license.
5. A depleted uranium general license is a registration of the use of the general license authorized pursuant to R12-1-305(C).
6. A veterinary medicine license is one which authorizes the use of radioactive materials for specific applications in veterinary medicine as authorized in the license.
7. A general veterinary medicine license is a registration of the use of the general license authorized in R12-1-306(F) in veterinary medicine.
8. A health physics class A license is one which authorizes the use of radioactive materials for performing instrument calibrations, processing leak test or environmental samples, or providing radiation dosimetry services.
9. A health physics class B license is one which authorizes only the collection, possession, and transfer of radioactive materials in the form of leak test samples for processing by others.
10. A secondary uranium recovery license is one which authorizes the extraction of natural uranium or thorium from an ore stream or tailing which is being or has been processed primarily for the extraction of another mineral. The Agency shall not combine a secondary uranium recovery license with any other license.
11. A low-level radioactive waste disposal facility license is one which is issued for a "disposal facility" as that term is used in R12-1-439 and R12-1-442; is constructed and operated according to the requirements in 10 CFR 61, 1998 Edition, published January 1, 1998, incorporated by reference and on file with the Agency and the Office of the Secretary of State, containing no future editions or amendments; and has a closure or long term care plan meeting the requirements of 10 CFR 61.
12. A waste processor class A license is one authorizing the incineration, compaction, repackaging, or any other treatment or processing of low-level radioactive waste prior to transfer to another person authorized to receive or dispose of the waste. The Agency shall not combine a waste processor class A license with any other license.
13. A waste processor class B license is one which authorizes a waste broker to receive prepackaged, low-level radioactive waste from other licensees; combine the waste into shipments; and transfer the waste without treating or processing the waste in any manner and without repackaging except to place damaged or leaking packages into overpacks. The Agency shall not combine a waste processor class B license with any other license.
14. An additional facility license is an endorsement, by license condition to an existing specific license, authorizing 1 or more additional separate facilities where radioactive material may be stored or used for a period exceeding 6 months.
15. A possession-only license is a license of any other category which authorizes only the possession in storage, but no use of, the authorized materials. A license which has been suspended as an enforcement action is not considered a possession-only license.
16. A reciprocal license is the registration of the general license authorized by R12-1-320. This license is subject to a special fee as provided by R12-1-1307 but is exempt from annual fees.
17. A radioactive waste transfer-for-disposal license is an authorization for the generator of radioactive waste to transfer the radioactive waste for disposal at a licensed disposal site under R12-1-439 and R12-1-442. This license is subject to a special fee as provided by R12-1-1307 but is exempt from annual fees.
18. An "unclassified" radioactive material license is one authorizing radioisotopes, physical or chemical forms, possession limits, or uses not included in any other type of license specified in this Section.
19. A NORM commercial disposal site license is one that authorizes the receipt of waste material contaminated with naturally occurring radioactive material from other licensees for permanent disposal, provided the concentration of the radioactive material does not exceed 74kBq (2,000 picocuries)/gram.

**E.** Category E registrations and licenses are those that register the possession of X-ray equipment or license the use of nonionizing radiation producing equipment under 12 A.A.C. 1, Article 2 or 14. The Agency shall not combine Category E registrations or licenses with any other registration or license.

1. An X-ray machine class A registration is one authorizing the possession of X-ray machines and particle accelerators in a hospital or other facility offering inpatient care.
2. An X-ray machine class B registration is one authorizing the possession of X-ray machines and particle accelerators in a medical, osteopathic, or chiropractic office or clinic not offering inpatient care; or the possession of X-ray machines in a school, college, university, or other teaching facility.
3. An X-ray machine class C registration is one authorizing the possession of X-ray machines in dental, podiatry, and veterinarian offices or clinics.
4. An industrial radiation machine registration is one authorizing the possession of X-ray machines, or the possession of particle accelerators not capable of producing a high radiation area, in a nonmedical facility.
5. An accelerator facility registration is one authorizing the possession and nonmedical operation of 1 or more particle accelerators of any kind capable of accelerating any particle and producing a high radiation area.
6. A tanning facility license is one authorizing the commercial operation of any number of tanning booths, beds, cabinets, or other enclosures in a single establishment.
7. A class A laser facility license is one which authorizes the operation of 1 to 10 laser systems subject to R12-1-1433.
8. A class B laser facility license is one which authorizes the possession of 11 to 49 laser systems subject to R12-1-1433.
9. A class C laser facility license is one which authorizes operation of 50 or more laser systems subject to R12-1-1433.
10. A laser light show license is one authorizing the operation of a laser system subject to R12-1-1440.
11. A medical laser facility license is one which authorizes the operation of 1 or more laser systems subject to R12-1-1439.

12. A medical radiofrequency device facility license is one authorizing the possession of 1 or more radiofrequency diathermy units.
13. A medical imaging facility license is one authorizing operation of a nuclear magnetic resonance imaging system utilizing radiofrequency and magnetic fields.
14. A class A industrial radiofrequency device facility license is one authorizing 1 to 5 radiofrequency heat sealers or industrial microwave ovens.
15. A class B industrial radiofrequency device facility license is one authorizing 6 to 20 radiofrequency heat sealers or industrial microwave ovens.
16. A class C industrial radiofrequency device facility license is one authorizing more than 20 radiofrequency heat sealers or industrial microwave ovens.
17. A radiation machine, "other," is one authorizing possession of or a usage of a radiation machine not included in any other category specified in subsection (E) of this Section.

**Historical Note**
Adopted effective November 19, 1982 (Supp. 82-6). Amended effective November 28, 1983 (Supp. 83-6). Section repealed, new Section adopted effective November 5, 1993 (Supp. 93-4). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1303. Fee for Initial License and Initial Registration**
An applicant shall remit for a new license or new registration the appropriate fee as prescribed in R12-1-1306, except that the fee will be prorated on a quarterly basis for applications submitted after March 31.

**Historical Note**
Adopted effective November 19, 1982 (Supp. 82-6). Amended effective November 28, 1983 (Supp. 83-6). Amended subsections (A), (C), and (D) effective November 28, 1986 (Supp. 86-6). Section repealed, new Section adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1304. Annual Fees for Licenses and Registrations**
**A.** Each license or registration issued by the Agency shall identify the category by a letter and number corresponding to the appropriate paragraph of R12-1-1302 or category type listed in R12-1-1306.
**B.** Except for types D16 and D17, each licensee or registrant shall submit payment of the annual fee in the amount prescribed in R12-1-1306(A) on or before January 1 of each year. This single annual fee will cover any and all renewals, amendments, and regular inspections of the license during the forthcoming calendar year.
**C.** If a licensee or registrant fails to pay the annual fee by January 1, the license is not current.
**D.** If a licensee or registrant fails to pay the annual fee by April 1, the Agency shall apply administrative sanction provisions of 12 A.A.C. 1, Article 12.

**Historical Note**
Adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1305. Method of Payment**
**A.** An applicant licensee or registrant shall pay fees by check or money order, payable to the "State of Arizona" at the address shown on the application, license, registration, or renewal notice.
**B.** Once a license or registration has been issued, no portion of the application fee or any annual fee will be refunded.

**Historical Note**
Adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1306. Table of Fees**
**A.** The application and annual fee for each category type are shown in Table 13-1.

Table 13-1

| Category | Type | Annual fee |
|---|---|---|
| A1. | Broad academic class A | $2,600 |
| A2. | Broad academic class B. | $1,500 |
| A3. | Broad academic class C. | $1,200 |
| A4. | Limited academic | $600 |
| B1. | Broad medical | $1,650 |
| B2. | Medical materials class A | $1,400 |
| B3. | Medical materials class B | $1,000 |
| B4. | Medical materials class C | $500 |
| B5. | Medical teletherapy | $1,650 |
| B6. | General medical. | $75 |
| C1. | Broad industrial class A | $2,200 |
| C2. | Broad industrial class B | $1,600 |
| C3. | Broad industrial class C. | $1,250 |
| C4. | Limited industrial | $500 |
| C5. | Portable gauge | $500 |
| C6. | Fixed gauge class A. | $800 |
| C7. | Fixed gauge class B | $500 |
| C8. | Leak detector | $500 |
| C9. | Gas chromatograph | $300 |
| C10. | General industrial | No Fee |
| C11. | Industrial radiography class A. | $1,650 |
| C12. | Industrial radiography class B. | $1,500 |
| C13. | Open field irradiator | Full Cost |
| C14. | Self-shielded irradiator | $600 |
| C15. | Well logging | $1,750 |
| C16. | Research and Development | $750 |
| C17. | Laboratory | $600 |
| D1. | Distribution | $2,150 |
| D2. | Nuclear pharmacy | $2,150 |
| D3. | Nuclear laundry | $2,250 |
| D4. | Depleted uranium | $100 |
| D5. | General depleted uranium | $75 |
| D6. | Veterinary medicine | $500 |
| D7. | General veterinary medicine | $75 |
| D8. | Health Physics class A | $600 |
| D9. | Health physics class B. | $450 |
| D10. | Secondary uranium recovery | $4,000 |
| D11. | Low-level radioactive waste disposal site | (3) |
| D12. | Waste processor class A | $2,250 |
| D13. | Waste processor class B | $500 |
| D14. | Additional facility | (1) |
| D15. | Possession only | (2) |
| D16. | Reciprocal | (3) |
| D17. | Radioactive waste transfer-for-disposal | (3) |
| D18. | Unclassified | Full Cost |
| D19. | Norm commercial disposal site | $200,000 |

| | | |
|---|---|---|
| E1. | X-ray machine Class A (per tube) | $64 |
| E2. | X-ray machine class B (per tube) | $44 |
| E3. | X-ray machine class C (per tube) | $36 |
| E4. | Industrial radiation machine (per device) | $36 |
| E5. | Major accelerator facility | Full Cost |
| E6. | Tanning facility (per device) | $24 |
| E7. | Class A laser facility | $150 |
| E8. | Class B laser facility | $350 |
| E9. | Class C laser facility | $600 |
| E10. | Laser light show | $350 |
| E11. | Medical laser facility (per laser system) | $40 |
| E12. | Medical RF device facility (per unit) | $40 |
| E13. | Medical imaging facility (per unit) | $50 |
| E14. | Class A industrial radiofrequency facility | $60 |
| E15. | Class B industrial radiofrequency facility | $180 |
| E16. | Class C industrial radiofrequency facility | $300 |
| E17. | Other radiation machine | Full Cost |

Notes: (1) 20% of the base fee for each additional site, not to exceed 100% additional for all sites.
(2) 50% of the annual fee for the license type required for full use of the stored radioactive materials.
(3) See R12-1-1307.

**B.** The annual fee for a license or registration for which the scheduled fee is "Full Cost" is approximately 18% of the full actual cost to the Agency for the personnel, consultants, facilities, equipment, supplies, and transportation used in evaluating the original application. The cost of all applications for amendments and all regular inspections during the 5-year normal life of the license or registration, calculated as follows:

1. The application fee is based on estimates of the cost which are based on consideration of (in order of preference):
   a. The experience of the Agency in issuing and servicing licenses and registrations of the same or a similar type;
   b. The experience of the U.S. NRC or other states in issuing and servicing licenses and registrations of the same or a similar type; or
   c. The general experience of the Agency, the U.S. NRC and other states in the costs of issuing and servicing different types of licenses and registrations and any estimates submitted by the applicant.
2. Annual fees for the 2nd through 4th years are determined by recalculation of the estimate made under subsection (B)(1), considering the actual cost based on experience in previous years and any revision of the estimated future costs.
3. The fee for the 5th year is 22.5% of the total actual cost to the Agency to issue and service the license or registration over the 1st 4 years of the license.

**Historical Note**
Amended effective November 5, 1993 (Supp. 93-4). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1307. Special License Fees**

**A.** The fee for a Type D16 license providing reciprocal recognition under R12-1-320 of a radioactive materials license issued by the U.S. NRC or another state is 1/2 of the annual fee for an Arizona license of the appropriate type. The fee is due and payable at the time reciprocity is requested, and the general license does not become current until the fee is paid.

**B.** The fee for a Type D17 radioactive waste transfer-for-disposal license is $2.50 per cubic foot of waste transferred, including packaging.
1. A standard 55-gallon drum waste package is considered to be 7 1/2 cubic feet of waste.
2. The fee is due at the time the waste is shipped, unless a prior written agreement between the person and the Agency is in effect. The total fee due shall be paid to the Agency in accordance with R12-1-1305(A).

**C.** For a low-level radioactive waste disposal site the initial application fee is $3,000,000. The annual fee for the 2nd through 5th years is $3,000,000. The Agency shall promulgate a new fee rule for years subsequent to year 5. Based on data gathered during the 1st 5 years, the Agency shall set a reasonable fee after consideration of the following factors:
1. Unrecovered costs which the Agency may charge under A.R.S. § 30-654(B)(18).
2. Actual costs incurred by the Agency.

**Historical Note**
Adopted effective November 5, 1993 (Supp. 93-4). Amended effective January 2, 1996 (Supp. 96-1). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1308. Fee for Requested Inspections**

**A.** A licensee or registrant may request an inspection of its facility at any time. The Agency shall bill the licensee or registrant 90% of the full cost of the inspection, based on personnel time for preparation, travel, on-site inspection, review of findings, and preparation of a report, charged at $25 per hour and mileage charged at 25¢ per mile.

**B.** The fee specified in this Section does not apply to:
1. Regular inspections as scheduled by the Agency,
2. Enforcement reinspections conducted to ensure the correction of violations or safety hazards, or
3. Inspections requested by workers pursuant to R12-1-1007.

**Historical Note**
Adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

**R12-1-1309. Abandonment of License or Registration Application**

**A.** Any license or registration application for which the applicant has been provided a written notification of deficiencies in the application and for which the applicant does not make a written attempt to supply the requested information or request an extension in writing within 90 days of the date of the written notice of deficiencies, is considered abandoned and will not be processed.

**B.** If an applicant does not act in the time-frame specified in subsection (A), the applicant shall submit a new application with the appropriate fee.

**Historical Note**
New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

## ARTICLE 14. THE CONTROL OF NONIONIZING RADIATION

### R12-1-1401. Repealed

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

### R12-1-1402. Definitions

**A.** The following terms have the meaning given when used in rules pertaining to radio frequency and microwave radiation:

1. "Accessible emission level" means the level of radio frequency radiation emitted from any source, expressed in terms of power density in milliwatts per square centimeter or electric and magnetic field strength as appropriate, and to which human access is normally possible.
2. "Far field region" means the region in which locally uniform distribution of electric and magnetic field strengths exists in planes transverse to the direction of propagation. The far field region shall be taken to exist at distances greater than $2D^2/\lambda$ from the antenna, where $\lambda$ is the wavelength and D is the largest antenna aperture dimension.
3. "Near field region" means the region near an antenna in which the electric and magnetic field components vary considerably in strength from point to point. For most antennas the outer boundary of the region shall be taken to exist at a distance $\lambda/2\pi$ from the antenna surface, where $\lambda$ is the wavelength.
4. "Radio frequency controlled area" means any area to which access is controlled for the purpose of protection from radio frequency radiation.
5. "Radio frequency exposure limits" means the maximum permissible whole body exposure to humans, from any source of radio frequency radiation.
6. "Radio frequency machine" means a radiation machine or system which produces electromagnetic radiation in the frequency spectrum.
7. "Radio frequency radiation" means that electromagnetic radiation (including microwave radiation) with frequencies in the range of 0.3 megahertz to 100 gigahertz.
8. "Safety device" means any device incorporated into a radio frequency machine which is designed to prevent human access to excessive levels of radio frequency radiation.

**B.** The following terms have the meaning given when used in rules applicable to lasers:

1. "Accessible emission level" means the magnitude of emission of laser or collateral radiation to which human access is possible.
2. "Accessible emission limit" means the maximum accessible emission level of laser radiation permitted within a particular class.
3. "Angular subtense" means the apparent visual angle, $\alpha$, as calculated from the source size and distance from the eye.
4. "Aperture" means any opening in a protective housing through which radiation is emitted, thereby allowing human access to the radiation.
5. "Aperture stop" means an opening serving to limit the size and to define the shape of the area over which radiation is measured.
6. "Certified laser product" means that the product is certified by a manufacturer pursuant to the requirements of 21 CFR 1040, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
7. "Class I laser" means any laser which permits human access during operation to laser radiation less than the accessible emission limits for any combination of emission duration and wavelength range.
   a. "Class I dual limits" means, for classification purposes, laser or collateral radiation in the wavelength range of greater than 400 nanometers but less than or equal to 1,400 nanometers exceeds the accessible emission limits of Class I if it exceeds both:
      i. The Class I accessible emission limits for radiant energy within any range of emission duration, and
      ii. The Class I accessible emission limits for integrated radiance within any range of emission duration.
8. "Class II Laser" means any laser which permits human access during operation to laser radiation above the Class I accessible emission limits, up to the accessible emission limits of Class II accessible emission limits and does not permit human access to laser radiation in excess of the accessible emission limits of Class I for any other emission duration or wavelength range.
9. "Class IIa laser products" means any laser product that permits human access during operation to levels of visible laser radiation in excess of the Class II accessible emission limits but does not permit human access during operation to levels of laser radiation in excess of the accessible Class IIa emission limits.
10. "Class III Laser" means any laser which permits human access during operation to laser radiation above the Class I accessible emission limits and, if applicable, Class II, but below the Class IIIa accessible emission limits. Class III lasers are separately designated as Class IIIa or Class IIIb.
    a. Class IIIa lasers are those lasers with an emission duration greater than 380 microseconds and in the wavelength range greater than 400 nanometers but less than or equal to 710 nanometers, with a radiant power of less than or equal to 5 milliwatts.
    b. Class IIIb lasers are all other Class III lasers as defined above.
11. "Class IV laser" means any laser which permits human access during operation to laser radiation above the Class III accessible emission limits.
12. "Class I, II, III, IV facility" means a facility which has 1 or more Class I, II (including IIa), III (including IIIa and IIIb), or IV lasers respectively. Facilities containing more than 1 class of laser shall be classified according to the highest laser class contained therein.
13. "Collateral radiation" means any electronic product radiation, except laser radiation, emitted by a laser as a result of the operation of the laser or any component of the laser product that is physically necessary for the operation of the laser. The accessible emission and maximum permissible exposure limits for collateral radiation are specified in 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
14. "Demonstration laser" means any laser manufactured, designed, intended, or used for purposes of demonstra-

tion, entertainment, advertising display, or artistic composition.

15. "Federal performance standard for light-emitting products" means the regulations in 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
16. "Human access" means access to laser or collateral radiation by any part of the human body.
17. "Incident" means an event or occurrence which results in a real or suspected accidental exposure to laser radiation which caused or is likely to cause biological damage.
18. "Integrated radiance" means radiant energy per unit area of a radiating surface per unit solid angle of emission, expressed in joules per square centimeter - steradian.
19. "Irradiance" means the radiant power incident on an element of a surface divided by the area of that element, expressed in watts per square centimeter.
20. "Laser controlled area" means any area into which human access is restricted for the purpose of radiation protection.
21. "Laser energy source" means any device intended for use in conjunction with a laser to supply energy for the operation of the laser. General energy sources, such as electrical supply mains or batteries, shall not be considered to constitute laser energy sources.
22. "Laser product" means any manufactured product, or assemblage of components which constitutes, incorporates, or is intended to incorporate a laser or laser system. A laser or laser system which is intended for use as a component of an electronic product shall itself be considered a laser product.
23. "Laser protective device" means any device used to reduce or prevent exposure of personnel to laser radiation. Such devices shall include protective eye wear, garments, engineering controls, and operational controls.
24. "Laser radiation" means all electromagnetic radiation emitted by a laser product, within the spectral range specified in the definition in Article 1, which is produced as a result of controlled stimulated emission.
25. "Laser Safety Officer" (LSO) means any individual, qualified by training and experience in the evaluation and control of laser hazards, who is designated by the licensee and has the authority and responsibility to establish and administer the laser radiation protection program for a particular facility.
26. "Laser system" means a laser in combination with an appropriate laser energy source, with or without additional incorporated components.
27. "MPE" means the maximum permissible exposure limits for human exposure to laser or collateral radiation established by this Article. MPE limits for eye and skin exposure listed in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State (this incorporation by reference contains no future editions or amendments) and for collateral radiation, in 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
28. "Maintenance" means the performance of those adjustments or procedures by the user to keep equipment in its intended operating condition. Maintenance does not include operation or service.
29. "Protective housing" means any panel, partition, dividing wall, or similar device which prevents human access to laser or collateral radiation in excess of the prescribed accessible emission limit.
30. "Pulse duration" means the time increment measured between the halfpeak power points at the leading and trailing edges of a pulse.
31. "Pulse interval" means the time duration between identical points on 2 successive pulses.
32. "Radiance" means the time-averaged radiant power per unit area of a radiating surface per unit solid angle of emission, expressed in watts per square centimeter per steradian.
33. "Radiant energy" means energy emitted, transferred or received in the form of radiation, expressed in joules.
34. "Radiant exposure" means the radiant energy incident on an element of a surface divided by the area of that element, expressed in joules per square centimeter.
35. "Radiant power" means the time-averaged power emitted, transferred, or received in the form of radiation, expressed in watts.
36. "Safety interlock" means a device associated with the protective housing of a laser product, system, or facility which prevents human access to laser and collateral radiation in excess of the prescribed accessible emission limit.
37. "Sampling interval" means the time interval during which the level of accessible laser or collateral radiation is sampled by a measurement process. The magnitude of the sampling interval in units of seconds is represented by the symbol "t".
38. "Secured enclosure" means an enclosure to which casual access is impeded by appropriate means, such as a door secured by lock, by latch, or by screws.
39. "Uncertified laser product" means any laser which has not been certified in accordance with the requirements of 21 CFR 1040, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**C.** The following terms have the meaning given when used in rules on ultraviolet and high-intensity light sources:

1. "High-intensity mercury vapor discharge (HID) lamp" means any mercury vapor or metal halide lamp incorporating a high-pressure arc discharge tube that has a fill consisting primarily of mercury and that is contained within an outer envelope but does not include the tungsten filament self-ballasted mercury vapor or metal halide lamp.
2. "Protective sunlamp eye wear" means any device designed to be worn by users of a sunlamp product to reduce radiation exposures to the eyes.
3. "Self-extinguishing lamp" means any HID lamp which ceases operation in conformance with the requirements of the performance standard in 21 CFR 1040.30(d), 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the

Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

4. "Sunlamp product" means any electronic device which incorporates 1 or more ultraviolet lamps and is intended for use to induce skin tanning.
5. "Tanning device" means any room, booth, cabinet, tanning bed, or other enclosure which houses sunlamp products for the purpose of irradiating any part of the human body for cosmetic or nonmedical purposes.
6. "Ultraviolet lamp" means any light source that produces ultraviolet radiation and that is intended for use in any sunlamp product.
7. "Ultraviolet radiation" means electromagnetic radiation with a wavelength in air of between 200 and 400 nanometers.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1403. General Safety Provisions and Exemptions**

**A.** The Agency may waive compliance with specific requirements of this Article if:
1. Compliance requires replacement, or substantial modification, to an installation, and
2. The licensee provides sufficient information to enable the Agency to determine that alternative methods of achieving the same or a greater level of radiation protection will be used.

**B.** The licensee shall:
1. Ensure that nonionizing radiation machines are operated only by individuals who have been trained and have demonstrated competence in the safe use of the equipment.
2. Provide safety rules to individuals operating nonionizing radiation machines and shall make these individuals aware of any restrictions in operating techniques required for the safe use of the machines.
3. Make, or cause to be made, physical radiation surveys as may be necessary to ensure compliance with the provisions of this Article.
4. Retain records, including but not limited to:
   a. Results of all physical surveys and calibrations required by this Article for 5 years,
   b. The calibration of radiation survey instruments for 5 years,
   c. Inventories to account for sources of radiation for 2 years,
   d. Records of maintenance, servicing or modifications which could affect the radiation emission characteristics of a machine for the life of the machine plus 2 years, and
   e. Permanent documentation of each incident involving known or suspected exposure to nonionizing radiation in excess of the maximum permissible exposure limits specified in this Article.

**C.** The licensee shall not operate, nor permit the operation of, a nonionizing radiation machine unless the machine complies with all applicable requirements of this Article.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1404. Radio Frequency Equipment Requirements**

**A.** Radiation machines emitting accessible emission levels exceeding the maximum permissible radio frequency exposure levels for uncontrolled areas specified in IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, shall be operated only in a radio frequency-controlled area, so arranged as to prevent human exposure in excess of the applicable values. Each point of access into a radio frequency-controlled area shall be posted with warning signs meeting the specifications indicated in R12-1-1406, Figure 1.

**B.** Radio frequency machines which are required to be operated in a radio frequency-controlled area shall incorporate visual or audible emission indicators which function only during production of radiation.

**C.** Sources of radio frequency emissions, which are physically separated from the means of activation of the sources by a distance greater than 2 meters, shall be provided with visual or audible emission indicators at both the source and the point of activation.

**D.** Visual emission indicators shall be so located that observation does not require human exposure to radio frequency radiation in excess of the applicable values in the radio frequency exposure limits.

**E.** Safety devices designed to prevent human exposure to excessive radio frequency radiation shall be inspected for proper operation at intervals not to exceed 1 month.

**F.** Machines emitting mechanically scanned radio frequency radiation shall not, as the result of scan failure or any other malfunction causing a change in angular velocity or amplitude, allow human exposure in excess of the radio frequency exposure limits.

**G.** Radio frequency machines shall be physically secured against unauthorized use or being tampered with when not in use.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1405. Radio Frequency Exposure Limits**

The licensee shall not allow, as a result of operation of radio frequency machines under the licensee's control, human exposure to radio frequency radiation in excess of the maximum permissible radio frequency exposure levels in IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, with the following exclusions:

1. At frequencies between 300 kHz and 100 GHz, IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, limits may be exceeded if the exposure conditions can be shown by laboratory procedures to produce specific absorption rates (SARs) below 0.4 watts per kilogram averaged over the whole body, and spatial peak SAR values below 8 watts per kilogram averaged over any 1 gram of tissue.

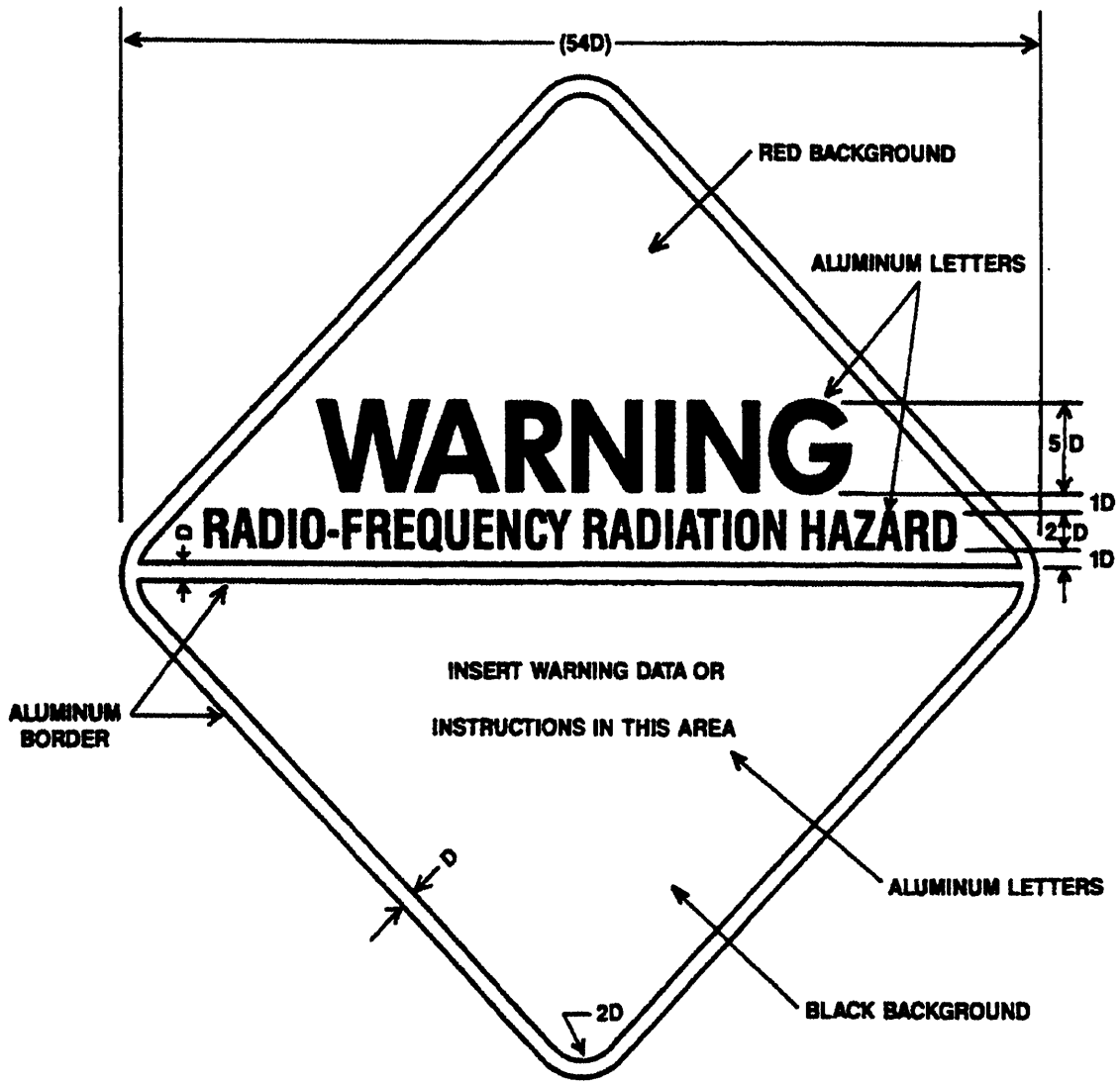
2. At frequencies between 300 kHz and 1 GHz, the IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, limits may be exceeded if the radio frequency input power to the radiating device is 7 watts or less.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1406. Radio Frequency Hazard Caution Signs, Symbols, Labeling, and Posting**

**A.** Radio frequency controlled areas shall be clearly posted with caution signs of the type designated in Figure 1 at each point of access to such areas.




1. Place handling and mounting instructions on reverse side.
2. D = Scaling unit
3. Lettering: Ratio of letter height to thickness of letter lines.
   Upper triangle: 5 to 1 Large
   6 to 1 Medium
   Lower triangle: 4 to 1 Large
   6 to 1 Medium
4. Symbol is square, triangles are right-angle isosceles.

**Fig. 1**

**B.** Any limitations or restriction in operating procedures required to prevent unnecessary or excessive exposure to radio frequency radiation shall be posted in a location clearly visible to the operator.

**C.** Warning signs and labels shall be located such that observation does not require unnecessary or excessive exposure to radio frequency radiation.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1407. Special Requirements for Microwave Ovens**

**A.** The power density of microwave radiation emitted by a microwave oven measured at any time subsequent to acquisition by a user shall not exceed 5 milliwatts per square centimeter at any point 5 centimeters from the external surface of the oven.

**B.** Compliance measurements shall be made with the oven operating at its maximum output, and containing a load of 275 ±15 milliliters of tap water at 20 ±5° C, within the oven cavity at the center of the load-carrying surface provided by the manufacturer. The water container shall be a low-form 600 milliliter beaker having an inside diameter of approximately 8.5 centimeters and made of an electrically nonconductive material such as glass or plastic.

**C.** Microwave ovens shall be provided with at least 2 safety interlocks, 1 of which is not accessible to humans without disassembly of the oven or door. The interlocks shall prevent microwave radiation emission in excess of the requirements of subsection (A). The failure of 1 interlock shall not cause failure of the 2nd.

**D.** Service performed on microwave ovens shall not result in failure of safety interlocks or the emission limits specified in subsection (A) to be exceeded.

**E.** Microwave ovens not meeting the standards prescribed in this Section shall be removed from service and not put back into service until the repairs necessary to achieve compliance have been completed.

**F.** Microwave ovens manufactured after October 6, 1971, shall be maintained in conformance with the requirements of 21 CFR 1040.30, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1408. Reporting of Radio Frequency Radiation Incidents**

**A.** When it is known or suspected that any individual has been exposed to radio frequency radiation in excess of the limits in R12-1-1405, the licensee shall report the incident to the Agency in writing within 15 days.

**B.** When it is known or expected that any individual has been exposed to radio frequency radiation in excess of 150% of the limits in R12-1-1405, the licensee shall report the incident to the Agency within 24 hours.

**C.** Immediate notification shall be made to the Agency when radio frequency radiation exposure exceeds 500% of the limits.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1409. Medical Surveillance for Radio Frequency Occupational Workers**

**A.** The Agency may require the licensee to provide medical examinations as necessary to protect the health of any individual exposed to radio frequency radiation produced by equipment under the licensee's control.

**B.** The licensee shall request the individual to provide to the Agency a copy of the results of medical examinations ordered pursuant to subsection (A). Such reports shall be held confidential by the Agency, unless all information which could identify the patient has been removed.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1410. Radio Frequency Compliance Measurements Criteria**

**A.** Measurements made to determine compliance with R12-1-1405 shall be made with instrumentation appropriate for the field strength and frequency of the radiations to be evaluated.

**B.** Instrumentation used for compliance measurements shall have been calibrated within the preceding year. The calibration shall be traceable to a national standard maintained by the National Institute of Standards and Technology (formerly known as the National Bureau of Standards.)

**C.** Compliance measurement of exposure conditions in the near field shall consist of measurements of the electric and magnetic field components. The applicable protection standards for near field measurements shall be the mean squared electric and magnetic field strengths in IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**D.** Measurements to determine compliance in far-field exposure conditions may be actual measurements of power density in milliwatts per square centimeter, or the calculated equivalent plane wave power density based on measurement of either the electric or magnetic field strength. The applicable protection standards shall be the power density values in IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**E.** The measurement requirements of this Section shall be met if:
1. Measurements of both electric and magnetic field strengths are obtained where the emission frequency is 300 megahertz or less, and
2. Measurement of electric or magnetic field strength is expressed in terms of power density.

**F.** For mixed or broadband fields at a number of frequencies for which there are different values of protection standards in IEEE C95.1-1991, Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz, 1991 edition, published by the Institute of Electrical and Electronic Engineers, Inc., incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, the fraction of the appropriate exposure limit incurred within each frequency interval shall be determined, and the sum of all such fractions shall not exceed unity.

**G.** Compliance measurements shall be made at distances 5 centimeters or greater from any object.

**H.** Measurements shall be averaged over a 6-minute period for pulsed and non-pulsed modes of radio frequency emission. Correction shall be made for duty cycle in determining the average field strength.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended

effective January 2, 1996 (Supp. 96-1).

**R12-1-1411. Licensing of Tanning Facilities**

**A.** No person shall operate a tanning facility unless the person has properly applied for a license pursuant to the R12-1-202(B).

**B.** A facility operating prior to the effective date of this Section may continue to operate, provided that the use of the license shall be registered within 6 months of the effective date.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1412. General Safety Requirements for the Operation of Tanning Facilities**

The licensee shall establish and maintain a program of written policies and procedures for radiation safety sufficient to assure compliance with the requirements in R12-1-1412 through R12-1-1416.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1413. Tanning Equipment Standards**

**A.** Only sunlamp products manufactured and certified to comply with 21 CFR 1040.20, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State, and this incorporation by reference contains no future editions or amendments, "Sunlamp products and ultraviolet lamps intended for use in sunlamp products", shall be used in tanning facilities. Compliance shall be based on the standard in effect at the time of manufacture as shown on the device identification label.

**B.** Defective or burned-out lamps or filters shall be replaced before further use of the tanning device.

**C.** The defective or burned-out lamp or filter shall be replaced with a type intended for use in that device as specified on the product label on the sunlamp products or with lamps or filters that are equivalent under the FDA regulations and polices applicable at the time of manufacture.

**D.** Each sunlamp product shall have a timer and control system which complies with the requirements of 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**E.** There shall be physical barriers as needed to protect users from injury induced by touching or breaking lamps.

**F.** Each tanning facility using stand-up booths shall comply with the following special requirements.

1. There shall be physical barriers, handrails, floor markings, or other means to indicate the proper exposure distance between the ultraviolet lamps and the user's skin.
2. The construction of the booth shall be such that it will withstand the stress of use and the impact of a falling person.
3. Access to booths shall be through doors of rigid construction, opening outwardly. Handrails and non-slip floors shall be provided.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1414. Operation and Use of Tanning Equipment**

**A.** There shall be present during operating hours at least 1 operator knowledgeable in the correct operation of the tanning devices used at the facility and able to inform and assist each user in the proper use of the tanning devices.

**B.** Prior to use of a tanning device by any individual, the operator shall:

1. Provide sanitized, protective, sunlamp eye wear and directions for its proper use;
2. Demonstrate the use of physical aids, as appropriate, to maintain proper exposure distance as recommended by the manufacturer of the tanning device;
3. Set the timer.

**C.** The operator shall limit each individual to the manufacturer's maximum recommended exposure time for the tanning device.

**D.** The interior temperature of a tanning device shall be controlled such that it does not exceed 38°C (100°F ).

**E.** Prior to the 1st use of a tanning facility in each calendar year, each user shall be required to read a copy of the warning specified in Section R12-1-1415. The user shall sign a statement that the information has been read and understood. For illiterate or visually handicapped persons, the warning statement shall be read by the operator in the presence of a witness. Both the witness and the operator shall sign the statement.

**F.** A record shall be kept by the operator of each user's total number of tanning visits and tanning times.

**G.** Each operator shall be trained and records of training retained in the facility. Training shall include:

1. The requirements of this Section,
2. Procedures for correct operation of the facility,
3. Manufacturer's procedures for operation and maintenance of tanning equipment,
4. Recognition of injury or overexposure,
5. Emergency procedures in case of injury.

**H.** A list of operators trained in accordance with R12-1-1414(G) shall be posted at the facility.

**Historical Note**

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1415. Warning Signs and Statements for Tanning Facilities**

**A.** A warning sign shall be posted in the area where a tanning device is used or where each user must pass before entering a tanning device.

**B.** The sign shall be clearly visible and unobstructed by any barrier or other item.

**C.** The sign shall read as follows:

**********

DANGER - ULTRAVIOLET RADIATION

1. Follow instructions.
2. Avoid overexposure. As with natural sunlight, exposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin, dryness, wrinkling, and skin cancer.
3. Wear protective eye wear.

FAILURE TO USE PROTECTIVE EYE WEAR MAY RESULT IN SEVERE BURNS OR LONG TERM INJURY TO THE EYES.

4. Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult a physician before using a sunlamp if you are using medications or have a history of skin problems or believe you are especially sensitive to sunlight.
5. If you do not tan in the sun, you are unlikely to tan from use of this device.

**********

**D.** The lettering on each warning sign shall be at least 10 millimeters high for all words shown in capital letters and at least 5 millimeters high for all lower case letters.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1416. Reporting of injuries in tanning facilities**

**A.** The licensee shall report any eye injury, skin burn, fall injury if the fall occurs within the tanning device or while entering or exiting the device, laceration or infection possibly transmitted by use of the tanning device.

**B.** The report shall be forwarded to the Agency within 10 working days of its occurrence or the date the registrant gained knowledge thereof.

**C.** The report shall include:
1. The name of the user,
2. Name and location of the tanning facility,
3. A description of nature of the injury,
4. The name and address of the health care provider treating the user, if any, and
5. Any other information the licensee may consider relevant to the incident.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1417. High intensity mercury vapor discharge (HID) lamps**

**A.** Unless otherwise approved by the Agency, each facility using HID lamps shall meet the following requirements:
1. For indoor facilities, HID lamps shall be:
   a. Self-extinguishing lamps bearing the letter "T" on the label, or
   b. Non-self-extinguishing lamps, bearing the letter "R" on the label, provided that the lamp is installed within a totally enclosed protective shield which protects the lamp from damage.
2. For outdoor facilities, HID lamps shall be:
   a. Self-extinguishing lamps bearing the letter "T" on the label,
   b. Non-self-extinguishing lamps, provided that the lamp is installed within a totally enclosed protective shield which protects the lamp from damage, or
   c. Exempted by the Agency as a result of the licensee providing sufficient information to the Agency to enable the Agency to determine that precautions taken to minimize the exposure to ultraviolet radiation with wavelengths less than 320 nanometers are at least as effective as the requirements of subparagraphs (a) and (b) above.
   d. Street lighting and security lighting fixtures permanently mounted 18 feet (5.5 meters) or higher above ground level are exempted from the requirements of this paragraph.

**B.** A written report of any injury due to overexposure to ultraviolet light from a HID lamp shall be forward to the Agency by the owner of the facility within 10 working days of its occurrence or of the date that the licensee gained knowledge thereof. The report shall include:
1. The names of all individuals known to have been injured,
2. The name and location of the facility,
3. The name and address of the health care providers treating the injuries, if any,
4. The type of lamp involved ("T" or "R"), lamp model designation and manufacturer,
5. Any other information the licensee may consider relevant to the incident.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1418. Reserved**

**R12-1-1419. Reserved**

**R12-1-1420. Reserved**

**R12-1-1421. Laser Safety Requirements, Surveys, and Records**

**A.** These requirements, including special requirements for testing, maintenance, and modification, shall apply to laser products in their intended mode of operation only. During manufacture and research and development activities, when some engineering controls may be inappropriate, the LSO shall specify alternate requirements to obtain equivalent laser safety protection.

**B.** The licensee shall appoint a laser safety officer and shall establish and maintain an effective program of laser radiation safety.

**C.** Each licensee shall make or cause to be made such laser radiation protection surveys as may be necessary to comply with R12-1-1433 initially prior to routine operation, upon system modifications, and routinely at intervals not to exceed 6 months. Surveys shall include but not be limited to:
1. A determination that all laser protective devices are labeled correctly and functioning within the design specifications and are proper for the type and class of lasers in use;

2. A determination that all warning devices are functioning within their design specifications;
3. A determination that each laser-controlled area is properly identified, access is controlled, and the area is posted with accurate warning signs in accordance with R12-1-1427.
4. A reevaluation of potential hazards from surfaces which may be associated with Class III and Class IV beam paths.
5. Additional surveys required to evaluate the laser and collateral radiation hazard incident to the use of lasers.

**D.** The licensee shall retain records of:
1. Results of all physical surveys made to determine compliance with this Article;
2. Records indicating any restriction in operating procedures necessary to prevent unnecessary or excessive exposure to laser or collateral radiation;
3. Records relating to any incident for which reporting to the Agency is required pursuant to R12-1-1436;
4. Results of medical surveillance to determine extent of injury resulting from exposure to laser or collateral radiation;
5. Inventory to account for all sources of radiation possessed by the licensee.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-2).

**R12-1-1422. General Requirements for All Laser Facilities**

**A.** Each laser product shall have a protective housing which prevents human access during operation to laser and collateral radiation that exceeds the limits of Class I and paragraphs (A) and (B) of Table X in R12-1-1426, wherever and whenever such human access is not necessary in order for the product to perform its intended function. Wherever and whenever humans are able to access laser radiation levels that exceed the limits of Class I or the accessible emission limits from 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, these levels shall not exceed the limits of the lowest laser class necessary to perform the intended function.

**B.** A safety interlock, which shall ensure that radiation is not accessible above MPE limits, shall be provided for any portion of the protective housing which, by design, can be removed or displaced without the use of tools during normal operation or maintenance and, thereby, allow access to radiation above MPE limits.
1. Adjustment during operation, service, testing, or maintenance of a laser containing interlocks shall not cause the interlocks to become inoperative or the radiation to exceed MPE limits outside protective housing except where a laser-controlled area as specified in R12-1-1433 is established.
2. For pulsed lasers, interlocks shall be designed so as to prevent firing of the laser.
3. For Class IIIb and IV continuous wave (cw) lasers, the interlocks shall turn off the power supply or interrupt the beam.
4. An interlock shall not allow automatic accessibility of radiation emission above MPE limits when the interlock is closed.
5. If failure of a single interlock would allow:
   a. Human access to levels of laser radiation in excess of the radiant power accessible emission limit of Class IIIa laser radiation; or
   b. Laser radiation in excess of the accessible emission limit of Class II to be emitted directly through the opening created by removal or displacement of that portion of the protective housing; then, either multiple safety interlocks or a means to preclude removal or displacement of the interlocked portion of the protective housing upon such failure shall be provided.

**C.** All viewing ports, viewing optics, or display screens included as an integral part of an enclosed laser or laser system shall incorporate a suitable means to attenuate the laser and collateral radiation transmitted through the port to less than the MPE and the accessible emission limits for collateral radiation from 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State, and this incorporation by reference contains no future editions or amendments, under any conditions of operation of the laser. The laser safety officer shall determine the potential for increased hazard that the use of optical system, such as lenses, telescopes, and microscopes, may cause to the eye or the skin, and specify administrative procedures and the use of controls such as interlocks or filters.

**D.** Each Class III or IV laser product shall provide visual or audible indication during the emission of accessible laser radiation in excess of the limits of Class I.
1. For Class IIIb, except those which allow access only to less than 5 milliwatts peak visible laser radiation, and Class IV lasers, the indication shall be sufficiently prior to emission of such radiation to allow appropriate action to avoid exposure.
2. Any visual indicator shall be clearly visible through protective eye wear designed specifically for the wavelength of the emitted laser radiation.
3. If the laser and laser energy source are housed separately and can be operated at a separation distance of greater than 2 meters, both laser and laser energy source shall incorporate visual or audible indicators.
4. The visual indicators shall be positioned so that viewing does not require human access to laser radiation in excess of the MPE.

**E.** In addition to the contents of signs, symbols, and labels prescribed in R12-1-1427, R12-1-1428 and R12-1-1429, each licensee shall provide near the signs, symbols, and labels any additional information which is necessary to minimize exposure to laser or collateral radiation within a facility.

**F.** Any restrictions in operating procedures required to ensure compliance with this Article shall be legibly posted at a position clearly visible to the laser operator.

*Editor's Note: The table referenced in subsection (A) was repealed effective January 2, 1996.*

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1423. Prohibitions**

**A.** No individual shall be permitted to look directly into a laser beam, directly at specular reflections of a laser beam, or align a laser by eye while looking along the axis of a beam when the intensity of such beams or reflections exceeds the MPE limits in this Article.

**B.** The licensee shall not permit any individual to enter a laser-controlled area when skin exposure in excess of the MPE limits is likely unless the licensee provides and requires the use of protective clothing, gloves and shields.

**C.** Laser products emitting spatially scanned laser radiation shall not, as a result of scan failure or any other failure causing a change in angular velocity or amplitude, permit human access to laser radiation in excess of the accessible emission limits applicable to the class of the product.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1424. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1425. Laser Product Classification**

**A.** Each laser product or installation shall be classified on the basis of that combination of emission level, emission duration, and wavelength of accessible laser radiation emitted over the full range of operational capability which results, any time during the useful life of such product or installation, in accordance with the requirements of the federal performance standards for light-emitting products contained in 21 CFR 1040.10.

**B.** The modification of any laser product or installation, which affects any aspect of performance or intended functions of such product or installations, shall require reclassification and relabeling in accordance with 21 CFR 1040.10.

**C.** Any laser system that is incorporated into a laser product subject to the requirements of this Article and that is capable, without modification, of producing laser radiation when removed from such laser product, shall itself be considered a laser product and shall be separately subject to the applicable requirements of this Article for laser products in its class. It shall be classified on the basis of accessible emission of laser radiation when so removed.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1426. Maximum Permissible Exposure Limits to Laser and Collateral Radiations**

**A.** No licensee shall use, or permit the use of, any laser products or installation which allows human exposure in excess of the MPE limits in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, and accessible emission limits in 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**B.** Maximum permissible exposure limits to the eye for intrabeam viewing shall not exceed those shown in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**C.** Maximum permissible exposure to the eye for extended source viewing shall not exceed the limits shown in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**D.** Skin exposure to laser radiation shall not exceed the MPE limits shown in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**E.** Exposure to collateral radiation shall not exceed the limits in 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1427. Requirements for Laser Caution Signs, Symbols, and Labels**

**A.** Except as otherwise authorized by the Agency, signs, symbols, and labels prescribed by this Section shall use the design and colors specified in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

**B.** The word "invisible" shall immediately precede the word "radiation" on labels and signs required by this Section for wavelengths of laser and collateral radiation that are outside of the range of 400 to 710 nanometers.

**C.** The words "visible and invisible" shall immediately precede the word "radiation" on labels and signs required by this Section for wavelengths of laser and collateral radiation that are both within and outside the range of 400 to 710 nanometers.

**D.** All labels placed on lasers or signs posted to laser facilities shall be positioned so as to make unnecessary, during reading, human exposure to laser or collateral radiation in excess of the MPE and AEL.

**E.** Labels and signs required by this Section shall be clearly visible, legible, and permanently attached to the laser or facility.

**F.** Each laser shall have a label permanently and legibly affixed which identifies, in accordance with the requirements in 21 CFR 1040, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, the classification of the laser.

**G.** Each Class III and IV laser shall state, at position 2 on the required warning logotype, the maximum output of laser radiation, the pulse duration when appropriate, and the laser medium or emitted wavelength.

**H.** Class III and IV lasers, except lasers used in the practice of medicine, shall have a label in close proximity to each aperture through which is emitted accessible laser or collateral radiation in excess of the MPE limits specified in R12-1-1426, with the following wording as applicable:

1. "AVOID EXPOSURE - Laser radiation is emitted from this aperture", if the radiation emitted through such aperture is laser radiation.
2. "AVOID EXPOSURE - Hazardous electromagnetic radiation is emitted from this aperture", if the radiation emitted through such aperture is collateral radiation.
3. "AVOID EXPOSURE - Hazardous x-rays are emitted from this aperture", if the radiation emitted through such aperture is collateral x-ray radiation.

**I.** Each non-interlocked or defeatably interlocked portion of the protective housing or enclosure which is designed to be displaced or removed during normal operation, maintenance, or servicing, and which thereby would permit human access to laser or collateral radiation, shall be labeled as follows:

1. For laser radiation in excess of the accessible emission limits of Class I or Class II, as applicable, but not in excess of the accessible emission limits of Class III, the wording: "DANGER - Laser radiation when open, AVOID DIRECT EXPOSURE TO THE BEAM".
2. For laser radiation in excess of the accessible emission limits of Class III, the wording: "DANGER - laser radiation when open, AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION".
3. For collateral radiation in excess of the accessible emission limits:
   a. If the limits for collateral laser radiation are exceeded, the wording: "CAUTION - Hazardous Electromagnetic Radiation when open"; and
   b. If the limits for collateral x-ray radiation are exceeded, the wording: "CAUTION - Hazardous X-ray Radiation".
4. For protective housing or enclosures which provide a defeatable interlock, the words "and interlock defeated" shall be included in the labels specified above.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1428. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1429. Posting of Laser Facilities**
Facilities shall be posted in a manner consistent with ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, or as otherwise approved in writing by the Agency.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1430. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1431. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1432. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1433. Laser-controlled Areas**

**A.** With a Class IIIb or Class IV laser, except those Class IIIb lasers which allow access only to less than 5 milliwatts visible peak power, a laser-controlled area shall be established when exposure to the laser radiation in excess of the MPE or AEL in R12-1-1426 is possible. The controlled area shall meet the requirements of subsections (B) through (D) for Class IIIb lasers and the requirements of subsections (B) through (H) for Class IV lasers.

**B.** The area shall be the responsibility of the laser safety officer.

**C.** The area shall be posted as required by R12-1-1427.

**D.** Access to the laser-controlled area shall be only by permission of the laser safety officer or a trained, designated representative.

**E.** For Class IV indoor controlled areas, latches, interlocks, or other appropriate means shall be used to prevent unexpected entry into laser-controlled areas.

1. Such measures shall be designed to allow both rapid egress by the laser personnel at all times and admittance to the laser-controlled area in an emergency condition.
2. For emergency conditions, a control-disconnect switch, panic button, or equivalent device shall be available for deactivating the laser.

**F.** For Class IV indoor controlled areas, during tests requiring continuous operation, the individual in charge of the controlled area shall be permitted to momentarily override the safety interlocks to allow access to other authorized personnel if it is clearly evident that there is no optical radiation hazard at the point of entry and if the necessary protective devices are being worn by the entering personnel.

**G.** For Class IV indoor controlled areas, optical paths such as windows from an indoor facility shall be controlled in such a manner as to reduce the transmitted values of the laser radiation to levels at or below appropriate ocular MPE and AEL in R12-1-1426. When the laser beam must exit the indoor controlled area (as in the case of exterior atmospheric beam paths), the operator shall be responsible for ensuring that the beam path is limited to controlled air space or controlled ground space when the beam irradiance or radiant exposure is above the appropriate MPE and AEL.

**H.** In cases where removal of panels or protective covers or overriding of interlocks becomes necessary, such as for service, testing, or maintenance, accessible laser-controlled areas shall be established. The laser safety office or a designated representative shall ensure that the necessary laser safety requirements for all potentially exposed individuals shall be established.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1434. Laser safety officer duties**
The Laser Safety officer shall administer the laser radiation protection program and shall:

1. Assure that maintenance and service for Class IIIb and Class IV lasers shall be performed only by technicians trained to provide such service by either the manufacturer's service organization or the institution's staff;
2. Approve written service and maintenance operating procedures;

3. Investigate, document and report all incidents and accidents as required by R12-1-1436;
4. Select protective eye wear as required pursuant to R12-1-1435, along with any other appropriate protective equipment;
5. For health care facilities, establish authorization and operating procedures, including preoperative and postoperative checklists, for use by operating room personnel;
6. Assure the training of authorized personnel in the assessment and control of laser hazards;
7. Select proper signs and warning posters as required by R12-1-1427;
8. Perform laser radiation protection surveys as required by R12-1-1424 and R12-1-1441;
9. Classify or verify classification of laser and laser systems used under the LSO's jurisdiction;
10. Be responsible for hazard evaluation of laser use areas, treatment areas, and laser control areas, as described in R12-1-1428(E).

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1435. Protective Eye Wear for Use in Laser Facilities**

**A.** Protective eye wear, as specified by the laser safety officer, shall be worn:
1. By all individuals with access to Class IV levels of laser radiation.
2. When required by the laser safety officer, by all individuals with access to Class IIIb levels of laser radiation.

**B.** Protective eye wear shall:
1. Be legibly and permanently labeled indicating the optical density at the wavelengths for which each such device affords adequate protection,
2. Be maintained in proper condition to assure the protective properties are retained,
3. Be inspected at intervals not to exceed 6 months to ensure integrity of the protective properties,
4. Be removed from service should the device be determined to be in a condition resulting in decreased protection.

**C.** Records of maintenance, inspections and removal from service shall be retained for 5 years.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1436. Reporting of Laser Incidents**

**A.** The licensee shall be responsible for the reporting to the Agency any incident involving known or suspected exposure to laser or collateral radiation, from a source possessed by the licensee, in excess of the MPE limits in R12-1-1426, Tables VII through X.

**B.** The Agency shall be notified within 24 hours by telephone of any incident which has caused or may have caused:
1. The permanent loss of sight in either eye; or
2. Third-degree burns of the skin involving more than 5 percent of the body surface as estimated by the rule of nines.

**C.** Each licensee shall notify the Agency by telephone within 5 working days of any incident which has or may have caused:
1. Second-degree burns of the skin larger than 1 inch (2.54 centimeter) in greatest diameter; or
2. Any third-degree burns of the skin; or
3. An eye injury with potential loss of sight.

**D.** Each licensee shall make a report in writing within 30 days to the Agency of:
1. Each exposure of an individual to laser and collateral radiation in excess of the MPE limits.
2. Any incident of which notification is required by subsection (B) or (C).

**E.** Each report required by subsection (D) shall describe the extent of exposure of individuals to laser or collateral radiation, including:
1. Estimates of each individual's exposure;
2. Levels of laser or collateral radiation involved;
3. The cause of the exposure; and
4. Corrective steps taken or planned to be taken to assure against a recurrence.

*Editor's Note: The tables referenced in subsection (A) were repealed effective January 2, 1996.*

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1437. Additional Requirements for Special Lasers and Applications**

Installations operating laser systems with unenclosed beam path shall:
1. Conduct an evaluation of the expected beam path and the potential hazards from incidental reflective surfaces which may be encountered before operating the laser. Incidental reflective surfaces shall be excluded from the beam path at all points where the laser radiation exceeds MPE limits.
2. The stability of the laser platform shall be evaluated to determine the constraints that shall be placed upon the beam traverse and the extent of the range of control.
3. No laser shall be operated or made ready for operation until the area along all points of the beam path where the laser radiation will exceed the MPE is clear of individuals, unless the individuals are wearing appropriate protective devices.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1438. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1439. Additional Requirements for Medical Laser Applications**

**A.** Each Class III and Class IV medical laser product shall incorporate the means for measurement of the level of laser radiation intended for human irradiation, with an error in measurement of no greater than ± 20%, when calibrated in accordance with the laser product manufacturer's calibration procedure.

**B.** Medical lasers used for human irradiation shall be calibrated in accordance with the manufacturer's specified calibration procedure, at intervals not to exceed those specified by the manufacturer.

**C.** The licensee shall ensure that medical lasers shall not be used for human irradiation unless all applicable requirements of this Article are met.

**D.** In institutions where a number of different practitioners may use Class IIIb and Class IV lasers, a laser safety committee shall be formed to govern laser activity, establish use criteria, and approve operating procedures.

1. Membership on the committee shall include at least a representative of the Nursing staff, the Laser Safety Officer, a representative of institution management, and a representative of each medical discipline that utilizes the lasers.
2. The committee shall review actions by the Laser Safety Officer in hazard evaluation and the monitoring and control of laser hazards.
3. Users, and those ancillary personnel who may operate or assist in the operation of the lasers under the direction of the users, shall be approved by the committee.

**E.** For Class IIIb and IV lasers, the switch which controls patient exposure shall have a guard mechanism to prevent inadvertent exposure.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1440. Laser Light Shows**

**A.** Prior to the performance of a laser light show, the licensee shall provide to the Agency documentation that a variance has been obtained in accordance with 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, to conduct the show.

**B.** The licensee shall notify the Agency in writing, at least 2 days in advance of the proposed laser light show, and shall include the following information:
1. The location, time, and date of the light show;
2. Sketches showing the location of the laser, operators, performers, laser beam path, viewing screens, walls, mirror balls, and other reflective or diffuse surfaces which may be struck by the laser beam;
3. Scanning beam patterns, scan velocity, and frequency in occupied areas;
4. Physical surveys and calculations made to ensure compliance with this Article.

**C.** The licensee shall also supply such additional information as may be required by the Agency for the evaluation of the safety of the proposed performance.

**D.** Prior to the performance of an outdoor laser light show, the licensee shall notify the Federal Aviation Administration of the proposed show.

**E.** Laser radiation emissions outside the spectral range 400 to 700 nanometers shall not exceed Class I accessible emission limits.

**F.** Levels of laser and collateral radiation, where the audience is located, and where operators, performers, and employees are located if the radiation is intended to be viewed by them, shall not exceed Class I accessible emission limits.

**G.** Operators, performers, and employees shall be able to perform their functions without being exposed to laser or collateral radiation exceeding Class II accessible emission limits when the radiation is not intended to be viewed by them.

**H.** Areas where levels of laser radiation exceed the Class II accessible emission limit shall be identified by posting of warning signs and through use of barriers or guards to prevent individuals from entering these areas.

**I.** Scanning devices shall not, as a result of scan failure or any other failure causing a change in either angular velocity or amplitude, permit audience exposure to laser radiation in excess of the accessible emission limits for a Class I laser product.

**J.** Where a mirror ball is used with a scanning laser, the conditions of subsections (E) and (F) shall be met with the mirror ball stationary or during any failure mode resulting in a change in rotational speed of the mirror ball.

**K.** Laser light shows shall be at all times under the direct and personal supervision of the laser operator except in cases where the maximum laser power output level is less than 5 milliwatts (all spectral lines), and the laser beam path is located at all times at least 6 meters above any surface upon which an individual in the audience is permitted to stand, and at any point less than 2.5 meters in lateral separation from any position where an individual in the audience is permitted during the performance.

**L.** Laser radiation levels shall not exceed the accessible emission limits for Class II laser products at any point less than 3 meters above any surface upon which any individual in the audience is permitted to stand and 2.5 meters in lateral separation from any position where an individual in the audience is permitted, unless physical barriers are present which prevent human access to such levels.

**M.** The maximum laser power output shall be limited to a level sufficient to produce the desired effect.

**N.** When laser output power must be limited to less than available power in order to satisfy the requirements of this Article, the laser output power shall be adjusted, measured, and recorded prior to the performance of the laser light show.

**O.** All safety devices and procedures necessary to comply with this Article shall be functionally tested and evaluated after setup and prior to the performance of laser light show to ensure compliance.

**P.** The laser system, when not in use, shall be secured against unauthorized operation or tampering.

**Q.** Laser alignment procedures shall be performed with the laser output power reduced to the lowest practicable level, and protective eye wear shall be worn where necessary to prevent exposure to radiation levels exceeding MPE. Only persons required to perform the alignment shall be present during such procedures.

**R.** The licensee shall ensure that no laser light show is conducted except as specifically authorized in a variance issued in accordance with 21 CFR 1040.10, 1993 edition, published April 1, 1993, by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, and applicable requirements of this Article.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1441. Measurements and Calculations to Determine MPE Limits for Lasers**

Measurements to determine MPE limits shall be made in a manner consistent with the procedures contained in ANSI Z136.1-1993, American National Standard for Safe Use of Lasers, 1993 edition, published by the Laser Institute of America, incorporated by reference and on file with the Department and the Office of the Secretary of State, containing no future editions or amendments, or as otherwise approved by the Agency.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1442. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-1-1443. Laser Compliance Measurement Instruments**
Each determination requiring a measurement for compliance with this Article shall use instrumentation which is calibrated and designed for use with the laser that is to be tested. The date of calibration, accuracy of calibration, wavelength range, and power or energy of calibration shall be specified on a legible, clearly visible label attached to the instrument.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**R12-1-1444. Laser Classification Measurements**
Measurement of accessible emission for classification shall be made:

1. Under those operational conditions and procedures which maximize the accessible emission levels including start-up stabilized operation, and shutdown of the laser or facility;
2. With all controls and adjustments listed in the operating and service instructions adjusted for the appropriate maximum accessible emission level of laser radiation which is not expected to be detrimental to the functional integrity of the laser or enclosure;
3. At points in space to which human access is possible for a given laser configuration. If operations may include removal of portions of the protective housing or enclosure and defeat of safety interlocks, measurements shall be made at points accessible in that configuration;
4. With the measuring instrument detector so positioned and so oriented with respect to the laser as to result in the maximum detection of radiation by the instrument; and
5. For a laser other than a laser system, with the laser coupled to that type of laser energy source specified as compatible by the laser fabricator and which produces the maximum emission of accessible laser radiation from that laser.
6. Accessible emission levels for classification of laser and collateral radiation shall be based upon the following measurements:
   a. For laser products intended to be used in a locale where the emitted laser radiation is unlikely to be viewed with optical instruments, the radiant power in watts or radiant energy in joules detectable through a circular aperture stop having a diameter of 7 millimeters, except for scanned laser radiation, and within a circular solid angle of acceptance of 1 millisteradian with collimating optics of 5 diopters or less.
   b. The irradiance in watts per square centimeter or radiant exposure in joules per square centimeter equivalent to the radiant power or radiant energy detectable through a circular aperture stop having a diameter of 7 millimeters and, for irradiance, within a circular solid angle of acceptance of 1 millisteradian with collimating optic of 5 diopters or less, divided by the area of the aperture stop in square centimeters.
   c. The radiance in watts per square centimeter per steradian or integrated radiance in joules per square centimeter per steradian equivalent to the radiant power or radiant energy detectable through a circular aperture stop having a diameter of 7 millimeters with a circular solid angle of acceptance of 10 microsteradian with collimating optics of 5 diopters or less, divided by that solid angle and by the area of the aperture stop in square centimeters.
   d. Accessible emission levels of scanned laser radiation shall be based upon the measurement of radiation detectable through a stationary circular aperture stop having a 7 millimeter diameter and within the circular solid angle of acceptance with collimating optics applicable under subparagraphs (a), (b) and (c). The direction of the solid angle of acceptance shall change as needed to maximize detectable radiation, with an angular speed of up to 5 radians per second. A 50 millimeter diameter aperture stop with the same collimating optics and acceptance angle will be used for all other laser products.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Section heading amended effective January 2, 1996 (Supp. 96-1).

**APPENDIX A. RADIOFREQUENCY DEVICES**
**RADIOFREQUENCY DEVICES INCLUDE BUT ARE NOT LIMITED TO:**

DIELECTRIC HEATERS AND SEALERS
INDUSTRIAL MICROWAVE OVENS AND DRYERS
MEDICAL DIATHERMY UNITS
ASHER - ETCHER MACHINES
RADAR
RADIO AND TELEVISION TRANSMITTERS
R.F. ACTIVATED ALARM SYSTEMS
MICROWAVE RELAY LINKS
SPUTTER MACHINES
R.F. WELDING EQUIPMENT
R.F. ACTIVATED LASERS
MEDICAL SURGICAL COAGULATORS
EDGE GLUERS

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**Appendix B. Repealed**

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective January 2, 1996 (Supp. 96-1).

## ARTICLE 15. TRANSPORTATION

**R12-1-1501. Reserved**
**R12-1-1502. Definitions**
Terms defined in Article 1 have the same meaning when used in this Article. Federal regulations incorporated by reference in this Article are on file at the Agency and the Office of the Secretary of State.

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1503. Repealed**

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6). Repealed effective June 13, 1997 (Supp. 97-2).

**R12-1-1504. Intrastate Transportation and Storage of Radioactive Materials**
**A.** A person shall not transport radioactive materials within this state except as provided in this rule.

1. A general license is issued subject to R12-1-1504(B), (C), (D) and R12-1-1505 to any licensee to transport and store radioactive material incidental to transportation, provided the transportation is incidental to, and is made to further the licensee's operations.
2. A general license is issued by this rule to any common or contract carrier not exempt pursuant to R12-1-103.

**B.** When transporting or storing radioactive materials, a person shall comply with the regulations of the U.S. Department of Transportation, 49 CFR 171 through 189, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State, to the extent. This incorporation by reference contains no future editions or amendments.

**C.** Any notification of incidents required by those regulations shall in addition be filed with, or made to, the Agency.

**D.** Persons who transport and store radioactive material under the general license in this Section are exempt from the requirements of Article 4 and Article 10 of this Chapter with respect to such transport and storage.

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6).
Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1505. Storing of Radioactive Material in Transport**

**A.** A person shall not store, for any period in excess of 72 hours, any package containing radioactive material bearing a Department of Transportation Yellow II or Yellow III label, unless the radioactive material is stored in an area other than, and not adjacent to, any food storage area or area that is normally occupied by an individual.

**B.** A person shall not store radioactive material with other hazardous materials, except as authorized by U.S. Department of Transportation regulations in 49 CFR 177.848, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State, containing no future editions or amendments.

**C**. Whenever a package containing radioactive material is stored in excess of 48 hours, the storage area shall be conspicuously posted pursuant to the requirements of Article 4.

**D.** When transit is interrupted and storage is required for an extended period, the following requirements apply:

1. When radioactive materials are stored for longer than 48 hours during transit, the carrier shall notify the local fire department and provide the following information:
   a. Warehouse location and carrier name and telephone number;
   b. Radionuclide(s);
   c. Activity per package in curies or becquerels and number of packages;
   d. Form (solid, metallic, liquid, gas);
   e. Flammability (if flammable);
   f. Specific location in warehouse;
   g. Estimated date of departure;
   h. Toxicity (if toxic).
2. If the radioactive material will be, or has been in storage for longer than 90 days, the carrier shall notify the Agency in writing and include the information required in (B)(1) above.
3. The licensee or carrier shall immediately notify the Department of Public Safety of an accident involving radioactive material.

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6).
Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1506. Preparation of Radioactive Material for Transport**

A licensee shall not deliver any package containing radioactive material to a carrier for transport or transport radioactive material, unless the licensee has:

1. Complied with the applicable packaging, monitoring, manifesting, marking, and labeling requirements, appropriate to the mode of transport, of the U.S. Department of Transportation, 49 CFR 171 through 189, 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation contains no future editions or amendments; and
2. Established procedures for safely opening and closing packages in which radioactive material is transported; and
3. Assured, prior to the delivery of a package to a carrier for transport that:
   a. The package is properly closed, and
   b. Any special instructions needed to safely open the package are sent or made available to the consignee.

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6).
Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1507. Packaging Quality Assurance**

**A.** Licensees that transport radioactive material in the course of their business or deliver radioactive material to a carrier for transport in a package for which a license, certificate of compliance, or other approval has been issued by the Nuclear Regulatory Commission, or which meets the applicable criteria specified in 10 CFR 71, 1996 Edition, published October 1, 1996, incorporated by reference and on file with the Agency and the Office of the Secretary of State, shall have, maintain and execute the quality assurance program specified in 10 CFR 71. This incorporation by reference contains no future editions or amendments.

**B.** Each licensee shall establish, maintain, and execute a quality assurance program as described in 10 CFR 71, to verify that deficiencies and defective material/equipment relative to the shipment of packages containing radioactive material, are promptly identified and corrected.

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6).
Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1508. Advance Notification of Transport of Nuclear Waste**

**A.** Prior to the transport of any nuclear waste, as defined in Article 1, outside of the confines of the licensee's facility or other place of use or storage, or prior to the delivery of any nuclear waste to a carrier for transport, each licensee shall provide advance notification of such transport to the Agency.

**B.** Each advance notification required in subsection (A) above shall contain the following information:

1. The name, address, and telephone number of the shipper, carrier, and receiver of the shipment;
2. A description of the nuclear waste contained in the shipment as required by 49 CFR 172.202 and 172.203(d), 1995 Edition, published October 1, 1995, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
3. The point of origin of the shipment and the 7-day period during which departure of the shipment will occur;

4. The 7-day period during which arrival of the shipment at state boundaries will occur;
5. The destination of the shipment, and the 7-day period during which arrival of the shipment will occur; and
6. A point of contact with a telephone number for current shipment information.

**C.** The licensee shall make the notification required by subsection (A) in writing to the Agency. A notification delivered by mail must be postmarked at least 7 days before the beginning of the 7-day period during which departure of the shipment is estimated to occur. The licensee shall maintain a copy of the notification for 1 year.

**D.** The licensee shall notify the Agency of any changes in shipment plans, including cancellations, rerouting, or rescheduling, provided pursuant to subsection (A). Such notification shall be by telephoning the Agency. The licensee shall maintain for 1 year a record of the name of the individual contacted.

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6).
Amended effective June 13, 1997 (Supp. 97-2).

**Appendix A. Repealed**

**Historical Note**
Adopted effective December 20, 1985 (Supp. 85-6).
Repealed effective June 13, 1997 (Supp. 97-2).

## ARTICLE 16. RESERVED

## ARTICLE 17. RADIATION SAFETY REQUIREMENTS FOR WIRELINE SERVICE OPERATIONS AND SUBSURFACE TRACER STUDIES

**R12-1-1701. Reserved**

**R12-1-1702. Required written agreement**

**A.** No licensee shall perform wireline service operations with a sealed source unless, prior to commencement of the operation, the licensee has a written agreement with the well operator, well owner, drilling contractor, or land owner that:
1. In the event a sealed source is lodged downhole, a reasonable effort at recovery will be made; and
2. No person will be permitted to attempt recovery of the source in any manner which, in the opinion of the licensee, could rupture the source; and
3. If the job site, equipment or personnel are contaminated with radioactive material, such equipment or personnel must be decontaminated before release from the site, and the job site must be decontaminated before release for unrestricted use; and
4. In the event a decision is made to abandon the sealed source downhole, the requirements of R12-1-1751(C) and of the rules of the Oil and Gas Conservation Commission or the Department of Water Resources, as appropriate, shall be met.

**B.** A copy of the agreement must be maintained at the field station during logging operations. The licensee shall retain a copy of the written agreement for 3 years after completion of the well logging operation.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1703. Limits on levels of radiation**

Sources of radiation shall be used, stored and transported in such a manner that the transportation requirements of Article 15 and the dose limitation requirements of Article 4 of this Chapter are met.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1704. Reserved**

**R12-1-1705. Reserved**

**R12-1-1706. Reserved**

**R12-1-1707. Reserved**

**R12-1-1708. Reserved**

**R12-1-1709. Reserved**

**R12-1-1710. Reserved**

**R12-1-1711. Reserved**

**R12-1-1712. Storage precautions**

**A.** Each source of radiation, except accelerators, shall be provided with a storage or transport container, or combination thereof. The container shall be provided with a lock, or tamper seal for calibration sources, to prevent unauthorized removal of, or exposure to, the source of radiation.

**B.** Sources of radiation shall be stored in a manner which will minimize danger from explosion or fire.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1713. Transportation precautions**

Transport containers shall be physically secured to the transporting vehicle to prevent accidental movement, loss, tampering, or unauthorized removal.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1714. Radiation survey instruments**

**A.** The licensee shall keep a calibrated and operable radiation survey instrument capable of detecting beta and gamma radiation at each field station and temporary job site to make the radiation surveys as required by this Article and by Article 4 of this Chapter.
1. To satisfy this requirement, the radiation survey instrument shall be capable of measuring 1.0 microsievert (0.1 millirem) per hour through 500 microsievert (50 millirem) per hour.
2. Survey instruments acquired before the effective date of this rule and capable of measuring 1.0 microsievert through at least 200 microsieverts (20 millirem) per hour may be used to satisfy this requirement until July 14, 1992.

**B.** The licensee shall have available additional calibrated and operable radiation detection instruments sensitive enough to detect the low radiation and contamination levels that could be encountered if a sealed source ruptured. The licensee may own the instruments or may establish a procedure to obtain them quickly from a second party.

**C.** Each radiation survey instrument required by subsection (A) shall be calibrated:
1. At intervals not to exceed 6 months and after each instrument servicing;
2. At energies comparable to the energy of the radiation from the sources used;
3. For linear scale instruments, at 2 points located approximately 1/3 and 2/3 of full-scale on each scale or for logarithmic scale instruments, at mid-range of each decade, and at 2 points of at least 1 decade;
4. So that accuracy within plus or minus 20 percent of the true radiation level can be demonstrated on each scale.

**C.** Calibration records shall be retained for a period of 3 years from the date of calibration.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1715. Leak Testing of Sealed Sources**
A licensee shall test each sealed source containing radioactive material for leakage in accordance with the provisions of R12-1-417. Records of the leak tests shall be retained for a period of 3 years from the date of the test, and a copy shall accompany the source to Job sites.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1716. Inventory**
Every 6 months each licensee or registrant shall conduct an inventory to account for all sources of radiation. Records of inventories shall be retained for 3 years from the date of the inventory and shall include the quantities and kinds of sources of radiation, the location where sources of radiation are assigned, the date of the inventory, and the name of the individual conducting the inventory.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1717. Utilization records**
Each licensee shall maintain current records, which shall be retained for 3 years from the date of the recorded event, showing the following information for each source of radiation:

1. Make, model number, and a serial number or a description of each source of radiation used;
2. The identity of the well-logging supervisor or field unit to whom assigned;
3. Locations where used and dates of use; and
4. In the case of tracer materials and radioactive markers, the utilization record shall indicate the radionuclide and activity used in a particular well.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1718. Design, performance and certification criteria for sealed sources used in downhole operations**

**A.** Each sealed source, except those containing radioactive material in gaseous form, used in downhole operations after July 14, 1989, shall be certified by the manufacturer to meet the following minimum criteria:
1. Be of doubly encapsulated construction;
2. Contain radioactive material whose chemical and physical forms are as insoluble and nondispersible as practical; and
3. Has been individually pressure tested to at least 170 meganewtons per square meter (24,656 pounds per square inch absolute) without failure.

**B.** For sealed sources, except those containing radioactive material in gaseous form, used in downhole operations after July 14, 1989, a prototype shall have been tested and found to maintain its integrity after each of the following tests:
1. The prototype source shall be held at a temperature of -40 degrees Celsius (C) for 20 minutes, then at 600 degrees C for 1 hour, and then be subjected to a thermal shock by dropping the temperature from 600 degrees C to 20 degrees C within 15 seconds.
2. A five-kilogram steel hammer, 2.5 centimeters in diameter, shall be dropped from a height of 1 meter onto the prototype source as a test of impact resistance.
3. The prototype source shall be subjected to vibration at a frequency of from 25 Hz to 500 Hz and at an amplitude of 5 g for 30 minutes.
4. A 1 gram hammer with a 0.3 centimeter diameter pin attached shall be dropped from a height of 1 meter such that the end of the pin strikes the prototype source.

**C.** Certification documents shall be retained for a period of 3 years after source disposal. If the source is abandoned downhole, the certification documents shall be retained permanently.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1719. Labeling**

**A.** Each source, source holder, or logging tool containing radioactive material shall bear a durable, legible, and clearly visible marking or label which has, as a minimum, the standard radiation caution symbol, without the conventional color requirement, and the following wording:

DANGER (or: CAUTION)

RADIOACTIVE

This labeling shall be on the smallest component transported as a separate piece of equipment.

**B.** Each transport container shall have permanently attached to it a durable, legible, and clearly visible label which has, as a minimum, the standard radiation caution symbol and the following wording:

DANGER (or: CAUTION)

RADIOACTIVE

NOTIFY CIVIL AUTHORITIES (or name of company)

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1720. Inspection and maintenance**

**A.** Each licensee shall conduct, at intervals not to exceed 6 months, a program of inspection and maintenance of holders, logging tools, source handling tools, storage containers, transport containers, and injection tools to assure proper labeling and physical condition. Records of inspection and maintenance shall be retained for a period of 3 years.

**B.** If any inspection conducted pursuant to R12-1-1720(A) reveals damage to labeling or components critical to radiation safety, the device shall be removed from service until repairs have been made.

**C.** The repair, opening, or modification of any sealed source shall be performed only by persons specifically authorized to do so by the Agency, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1721. Training Requirements**

**A.** A licensee shall not permit any individual to act as a logging supervisor as defined in Article 1 until such individual has:
1. Received, in a course recognized by the Agency, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State instruction in the following subjects and demonstrated an understanding thereof:
   a. Fundamentals of radiation safety
      i. Characteristics of radiation
      ii. Units of radiation dose and quantity of radioactivity
      iii. Significance of radiation dose
         (1) Radiation protection standards
         (2) Biological effects of radiation dose
      iv. Levels of radiation from sources of radiation
      v. Methods of minimizing radiation dose

(1) Working time
(2) Working distances
(3) Shielding

b. Radiation detection instrumentation to be used
i. Use of radiation survey instruments
(1) Operation
(2) Calibration
(3) Limitations
ii. Survey techniques
iii. Use of personnel monitoring equipment

c. Equipment to be used
i. Handling equipment
ii. Sources of radiation
iii. Storage and control of equipment
iv. Operation and control of equipment

d. The requirements of pertinent federal and state regulations

e. The licensee's written operating and emergency procedures

f. The licensee's record keeping procedures

2. Read and received instruction in the rules contained in this Article and the applicable sections of Articles 1, 4, 10, and 15 of this Chapter or their equivalent, conditions of appropriate license or certificate of registration, and the licensee's operating and emergency procedures, and demonstrated an understanding thereof; and
3. Demonstrated competence to use sources of radiation, related handling tools, and radiation survey instruments which will be used on the job.

**B.** A licensee shall not permit any individual to assist in the handling of sources of radiation until such individual has:
1. Read or received instruction in the licensee's operating and emergency procedures and demonstrated an understanding thereof; and
2. Demonstrated competence to use, under the personal supervision of the logging supervisor, the sources of radiation, related handling tools, and radiation survey instruments which will be used on the job.

**C.** The licensee shall retain employee training records for 3 years following termination of employment.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1722. Operating and emergency procedures**
The licensee's operating and emergency procedures shall include instructions in at least the following:
1. Handling and use of sources of radiation to be employed so that no individual is likely to be exposed to radiation doses in excess of the standards established in Article 4 of this Chapter;
2. Methods and occasions for conducting radiation surveys;
3. Methods and occasions for locking and securing sources of radiation;
4. Personnel monitoring and the use of personnel monitoring equipment;
5. Transportation to temporary job sites and field stations, including the packaging and placing of sources of radiation in vehicles, placarding of vehicles, and securing sources of radiation during transportation;
6. Minimizing exposure of individuals in the event of an accident;
7. Procedure for notifying proper personnel in the event of an accident;
8. Maintenance of records;
9. Inspection and maintenance of source holders, logging tools, source handling tools, storage containers, transport containers, and injection tools;
10. Procedure to be followed in the event a sealed source is lost or lodged downhole;
11. Procedures to be used for picking up, receiving, and opening packages containing radioactive material; and
12. Procedures to be used for site and equipment surveys and decontamination following tracer studies.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1723. Personnel Monitoring**
**A.** A licensee shall not permit any individual to act as a logging supervisor or to assist in the handling of sources of radiation unless each such individual wears either a film badge or a thermoluminescent dosimeter (TLD). Each film badge or TLD shall be assigned to and worn by only 1 individual.
**B.** Where necessary in order to aid in determining the extent of an individual's exposure to concentrations of radioactive material, the licensee shall provide bioassay for individuals conducting tracer studies.
**C.** Personnel monitoring records shall be maintained in accordance with R12-1-419(C).

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1724. Reserved**

**R12-1-1725. Reserved**

**R12-1-1726. Reserved**

**R12-1-1727. Reserved**

**R12-1-1728. Reserved**

**R12-1-1729. Reserved**

**R12-1-1730. Reserved**

**R12-1-1731. Security**
During each logging or tracer application, the logging supervisor or other designated employee shall maintain direct surveillance of the operation to protect against unauthorized or unnecessary entry into a restricted area, as defined in Article 1 of this Chapter.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1732. Handling tools**
The licensee shall provide and require the use of tools that will assure remote handling of sealed sources other than low-activity calibration sources.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1733. Subsurface tracer studies**
**A.** Protective gloves and other appropriate protective clothing and equipment shall be used by all personnel handling radioactive tracer material. Precautions shall be taken to avoid ingestion or inhalation of radioactive material.
**B.** No licensee shall cause the injection of radioactive material into potable aquifers without prior written authorization from the Agency.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1734. Particle accelerators**
No licensee shall permit above-ground testing of particle accelerators, designed for use in well-logging, which results in the production of radiation, except in areas or facilities controlled or shielded so that the requirements of Article 4 of this Chapter, as applicable, are met.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1735. Reserved**

**R12-1-1736. Reserved**

**R12-1-1737. Reserved**

**R12-1-1738. Reserved**

**R12-1-1739. Reserved**

**R12-1-1740. Reserved**

**R12-1-1741. Radiation surveys**
**A.** Radiation surveys using instruments or calculations of radiation levels shall be made and recorded for each area where radioactive materials are stored.
**B.** Radiation surveys using instruments or calculations of radiation levels shall be made and recorded for the radiation levels in occupied positions and on the exterior of each vehicle used to transport radioactive material. Such surveys or calculations shall include each source of radiation or combination of sources to be transported in the vehicle.
**C.** After removal of the sealed source from the logging tool and before departing the job site, the logging tool detector shall be energized, or a survey meter used, to assure that the logging tool is free of contamination.
**D.** Radiation surveys using instruments shall be made and recorded at the job site or wellhead for each tracer operation, except those using Hydrogen-3, Carbon-14 and Sulfur-35. These surveys shall include measurements of radiation levels before and after the operation.
**E.** Records required pursuant to R12-1-1741(A) through (D) shall include the dates, the identification of individuals making the survey, the identification of survey instruments used, radiation measurements in millirem or microsievert per hour and an exact description of the location of the survey. Records of these surveys shall be retained for 3 years after completion of the survey.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2).

**R12-1-1742. Documents and Records Required at Field Stations**
Each licensee utilizing a field station shall have the following documents and records available for the specific devices and sources used at the field station:
1. Appropriate license, certificate of registration, or equivalent document;
2. Operating and emergency procedures;
3. Applicable regulations;
4. Records of the latest survey instrument calibrations pursuant to R12-1-1714;
5. Records of the latest leak test results pursuant to R12-1-1715;
6. Inventories of sealed sources required pursuant to R12-1-1716;
7. Utilization records required pursuant to R12-1-1717;
8. Records of inspection and maintenance required pursuant to R12-1-1720; and
9. Survey records required pursuant to R12-1-1741.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1743. Documents and Records Required at Temporary Job Sites**
Each licensee conducting operations at a temporary job site shall have the following documents and records available at that site:
1. Operating and emergency procedures;
2. Survey records required pursuant to R12-1-1741 for the period of operation at the site;
3. Evidence of current calibration for the radiation survey instruments in use at the site; and
4. When operating in Arizona under reciprocity, a copy of the current out-of-state license, certificate of registration, or equivalent documents; and Agency authorization to enter the state to perform operations governed by this Article.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

**R12-1-1744. Reserved**

**R12-1-1745. Reserved**

**R12-1-1746. Reserved**

**R12-1-1747. Reserved**

**R12-1-1748. Reserved**

**R12-1-1749. Reserved**

**R12-1-1750. Reserved**

**R12-1-1751. Notification of Incidents, Abandonment, and Lost Sources**
**A.** Notification of incidents and sources lost in other than downhole logging operations shall be made in accordance with appropriate provisions of Article 4 of this Chapter.
**B.** Whenever a sealed source or device containing radioactive material is lodged, the licensee shall notify the Agency of the planned procedures for recovery prior to attempting recovery and shall:
1. Monitor at the surface for the presence of radioactive contamination with a radiation survey instrument or logging tool during logging tool recovery operations; and
2. Notify the Agency immediately by telephone if radioactive contamination is detected at the surface or if the source appears to be damaged.
**C.** When it becomes apparent that efforts to recover the radioactive source will not be successful, the licensee shall:
1. Advise the well operator of the regulations of the Agency regarding abandonment and an appropriate method of abandonment, which shall include:
   a. The immobilization and sealing in place of the radioactive source with a cement plug;
   b. The setting of a whipstock or other deflection device; and
   c. The mounting of a permanent identification plaque at the surface of the well containing the appropriate information required by R12-1-1751(D).
2. Notify the Agency by telephone, giving the circumstances of the loss and requesting approval of the proposed abandonment procedures; and
3. File a written report with the Agency within 30 days of the abandonment, setting forth the following information:
   a. Date of occurrence and a brief description of attempts to recover the source;

b. A description of the radioactive source involved, including radionuclide, quantity, and chemical and physical form;
c. Surface location and identification of well;
d. Results of efforts to immobilize and set the source in place;
e. Depth of the radioactive source;
f. Depth of the top of the cement plug;
g. Depth of the well; and
h. Information contained on the permanent identification plaque.

**D.** Whenever a sealed source containing radioactive material is abandoned downhole, the licensee shall provide a permanent plaque for posting the well or well-bore. This plaque shall:
1. Be constructed of long-lasting material at least 7 inches square; and
2. Contain the following information engraved on its face in lettering at least 1/4 inch high:
   a. The word "CAUTION" in lettering at least twice the letter size of the other information;
   b. The radiation symbol without the conventional color requirement;
   c. The date of abandonment;
   d. The name of the well operator or well owner;
   e. The well name and well identification number or numbers, or other designation;
   f. The sealed source or sources by radionuclide and quantity of activity;
   g. The source depth and the depth to the top of the plug; and
   h. An appropriate warning, depending on the specific circumstances of each abandonment.

**E.** The licensee shall immediately notify the Agency by telephone and subsequently by confirming letter if the licensee knows or has reason to believe that radioactive material has been lost in or to an underground potable water source. Such notice shall designate the well location and shall describe the magnitude and extent of loss of radioactive material, assess the consequences of such loss, and explain efforts planned or being taken to mitigate these consequences.

**Historical Note**
Adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2).

# TITLE 12. NATURAL RESOURCES

## CHAPTER 2. RADIATION REGULATORY AGENCY
## MEDICAL RADIOLOGIC TECHNOLOGY BOARD OF EXAMINERS DIVISION

(Authority: A.R.S. § 32-2803 et seq.)

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*Article 3, consisting of Section R12-2-301, adopted effective December 9, 1998 (Supp. 98-4).*

*Article 3, consisting of Sections R12-2-301 and R12-2-302, repealed effective December 9, 1998 (Supp. 98-4).*

Section
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### ARTICLE 4. SCHOOLS OF PRACTICAL RADIOLOGIC TECHNOLOGY

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### ARTICLE 1. GENERAL PROVISIONS

**R12-2-101. Definitions**

The definitions in A.R.S.§ 32-2801 apply to this Article. In addition, the terms in this Chapter have the following meaning, unless the context otherwise requires:

"Assistance" means any activity except the following: Positioning of the patient and x-ray tube, selecting technical settings, and exposing a patient to x-rays.

"Certification" means the process by which the Board grants permission and recognition to an individual to engage in radiologic technology upon finding the individual has met the qualifications specified by statute and rule.

"Chest radiography" means radiography performed to visualize the heart and lungs only.

"Contrast media" means material intentionally administered to the human body to define a part or parts that are not normally radiographically visible.

"Diagnostic application" means the use of ionizing radiation for diagnostic purposes, including but not limited to, measuring and positioning patients, selecting technical settings on x-ray equipment, and making x-ray exposures.

"Extremity" means the lower 2/3 of the humerus distally to the phalanges and the lower 2/3 of the femur distally to the phalanges.

"Foot" means the distal part of the human leg upon which an individual stands and walks.

"Practical radiologic technologist" for purposes of this Chapter is equivalent to "practical technologist in radiology"; however, this title is further defined as a person authorized to use radiography, not including fluoroscopy and the use of contrast media, and limited to the chest and extremities, on humans, at the direction of a licensed practitioner; unless

The person is certified as a practical radiologic technologist in podiatry, in which case the person is limited to radiography of the foot and leg; or

The person is certified as an "unlimited" practical radiologic technologist, in which case the person is not limited to radiography of the body areas in this definition.

"Practical radiologic technologist in podiatry" for purposes of this Chapter is equivalent to "practical technologist in podiatry".

"Practical radiologic technology" means radiography limited to the chest or extremities and not including the use of fluoroscopy and the use of contrast media. For purposes of this Chapter "practical radiologic technology" is equivalent to "practical technology in radiology".

"Radiograph" means the record of images which represents anatomical details of the part radiographically examined and is formed by the differential absorption of ionizing radiation within the part.

"Radiography" means the use of ionizing radiation in making radiographs.

"Special permit" means a certificate issued by the Board exempting an individual from the specific provisions of A.R.S.§§ 32-2802 through 32-2813.

"Specific direction" means the application of x-radiation to a specific area of the human body for diagnostic purposes while under the specific supervision of a licensed practitioner.

"Temporary certificate" means a certificate issued by the Board to any person who has completed a training program approved by the Board and whose certification is pending.

"Therapeutic application" means the use of ionizing radiation including, but not limited to, setting up the treatment position, delivering the required dose prescribed by

the physician, certifying the record of the technical details of the treatment, selecting the required filter and treatment distance, making beam directional shells and molds, using diagnostic x-ray equipment for tumor localization, assisting the physicist in calibration procedure, and assisting in treatment planning procedures. Therapeutic application does not include taking x-rays for diagnostic purposes.

"Therapeutic purpose" means the use of x-radiation to treat human disease.

"X-radiation" means penetrating electromagnetic radiation with wave-lengths shorter than those of visible light that is usually produced by bombarding a metallic target with fast electrons in a high vacuum, creating photons that originate from the extranuclear part of the atom.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-102. Certificate Granting Bodies**
For the purpose of A.R.S. §32-2812(C), the Board shall maintain a list of approved certificate granting bodies in the field of Radiologic Technology.

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). New Section R12-2-102 adopted effective August 24, 1981 (Supp. 81-4). Correction (Supp. 81-6). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-103. Communications**
Any person interested in providing or receiving information concerning these rules or other matters should contact the Medical Radiologic Technology Board of Examiners

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). New Section R12-2-103 adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-104. Approval of Radiologic Technology Schools**
**A.** An applicant seeking approval for a proposed radiologic technology school shall apply by letter and shall address all of the concerns listed for school approval in A.R.S. § 32-2804.
**B.** The Board shall review and approve a school application according to the schedule in R12-2-301.
**C.** The Board shall maintain a list of radiologic technology schools approved according to A.R.S. § 32-2804.

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). Emergency expired. New Section adopted by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-105. Reserved**

**R12-2-106. Reserved**

**R12-2-107. Emergency expired**

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). Emergency expired.

**R12-2-108. Emergency expired**

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). Emergency expired.

## ARTICLE 2. APPLICATION AND CERTIFICATION OF TECHNOLOGISTS

**R12-2-201. Applications**
With respect to the application procedure outlined in A.R.S. § 32-2812(A) and (B):
1. The Board accepts a passing score on the high school equivalency test (G.E.D.) as evidence of successful completion of high school or its equivalent.
2. On a notarized Board application form for certification, or as an attachment to a completed and notarized Board application, an applicant shall provide the following information:
   a. Copy of current American Registry of Radiologic Technologists (ARRT) wallet card;
   b. Copy of any degree, diploma, or certificate from an approved radiologic or practical radiologic technology school;
   c. Photo;
   d, Certification fee;
   e. Name, address, and telephone number;
   f. Birth date, sex, and social security number;
   g. Purpose of application and current licensure or certificate number, if applicable;
   h. Employment information for the last 3 years;
   i. Education information;
   j. Criminal, moral, license/certification history; and
   k. Signature and date of signature of the applicant

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). New Section R12-2-201 adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-202. Qualifications**
**A.** The Board shall issue a radiologic technologist certificate if the applicant meets the qualifications for a radiologic technologist certificate prescribed in A.R.S. §32-2812 or the qualifications for a temporary radiologic technologist certificate prescribed in A.R.S.§32-2814.
**B.** The Board shall issue a practical technologist in radiology certificate if the applicant has passed an examination approved by the Board and has completed a Board-approved program of limited practical technology in radiology. An applicant shall be notified by the Board of the time and place of the next examination, if the applicant fails the examination.
**C.** An applicant or an inactive certificate holder who has not practiced radiologic technology during the prior 3 years shall pass an examination approved by the Board before certification.

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). New Section R12-2-202 adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-203. Examination Failures**
Upon failing the certification exam a 3rd time, a radiologic or a practical radiologic technologist applicant shall repeat the entire course of training prescribed for the specified certificate.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4).
Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-204. Prohibitions and Limitations**
**A.** The practice of radiologic technology includes the direct application of x-radiation, technical instruction, and supervision of diagnostic and therapeutic applications.
**B.** The practical radiologic technology certificate, issued after August 27, 1978, authorizes the practical radiologic technologist to perform only:
1. Radiography of the chest, involving the heart and lungs;
2. Radiography of the upper extremities, excluding the proximal 1/3 of the humerus; or
3. Radiography of the lower extremities, excluding the upper 1/3 of the femur.

**C.** In addition to the anatomical limitation prescribed in subsection (B), the practical radiologic technologist is prohibited from performing any radiography involving the use of contrast media.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4).
Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-205. Certificate Expiration**
Failure to pay the renewal fee for certification, as specified in R12-2-206, on or before the certificate's expiration date will result in the expiration of the certificate. An expired certificate cannot be reinstated. An individual who fails to renew a certificate in a timely manner, shall reapply according to R12-2-201.

**Historical Note**
Adopted as an emergency effective May 9, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-3). New Section R12-2-205 adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-206. Fees**
The certification renewal fee adopted by the Board is $60. The initial application fee is specified in A.R.S. §32-2812.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4).
Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-207. Changes of Name or Address; Duplicate Certificates**
**A.** A holder of a certificate shall notify the Board in writing of any change in name or address within 60 days of the change. A holder of a certificate requesting a change of name on a certificate shall submit the certificate containing the incorrect name to the Board before the Board issues a corrected certificate.
**B.** A holder of a certificate shall receive a duplicate certificate upon submitting to the Board a notarized statement describing, to the best of the certificate holder's knowledge, the circumstances of the loss or destruction of the original certificate.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4).
Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

## ARTICLE 3. LICENSING TIME-FRAMES

**R12-2-301. Licensing Time-frames**
**A.** Within 30 days of receiving an initial or a renewal certificate or permit application package, the Board shall notify the applicant of any deficiencies found in the package. The Board shall provide a written comprehensive list of the deficiencies to the applicant. The 30 day time-frame for determining administrative completeness is suspended from the date the deficiency notice is mailed until the date that the Board receives all missing information from the applicant. If an applicant fails to supply the missing information or to request an extension of response time within 90 days from the date of the deficiency notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.
**B.** The Board shall render a certification or permit decision within 30 days after completion of the administrative completeness review time-frame, unless an extension of 15 days is agreed to by the applicant. If deficiencies are found in the application package, the Board shall make a written comprehensive request for additional information from the applicant. The 30 day time-frame for substantive review is suspended from the date the request is mailed until the date that the Board receives additional information from the applicant. If an applicant fails to respond to the written request or to request an extension of response time within 90 days of the notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.
1. If an applicant is found to be ineligible, the Board shall provide the applicant a written notice of denial explaining:
   a. The reason for the denial with citation to supporting statutes or rules;
   b. The applicant's right to seek an appeal of the denial; and
   c. The time periods for appealing the denial.
2. If an applicant is found to be eligible, the applicant shall be notified and provided a certificate or permit number.

**C.** Within 60 days of receiving a school application package, the Board shall notify the applicant of any deficiencies found in the package. The Board shall provide a written comprehensive list of the deficiencies to the applicant. The 60 day time-frame for determining administrative completeness is suspended from the date the deficiency notice is mailed until the date that the Board receives all of the missing information from the applicant. If an applicant fails to supply the missing information or to request an extension of response time within 90 days from the date of the deficiency notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.
**D.** The Board shall render a decision regarding school approval within 60 days after the completion of the administrative completeness review time-frame, unless an extension of 30 days is agreed to by the applicant. If deficiencies are found in the application package, the Board shall make a written comprehensive request for additional information from the applicant. The 60 day time-frame for substantive review is suspended from the date the request is mailed until the date that the Board receives all additional information from the applicant. If an applicant fails to respond to the written request or to request an extension of response time within 90 days of the notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.
1. If an applicant is found to be ineligible, the Board shall provide the applicant a written notice of denial explaining:

a. The reason for the denial with citation to supporting statutes or rules;
b. The applicant's right to seek an appeal of the denial; and
c. The time periods for appealing the denial.

2. If an applicant is found to be eligible, the applicant shall be notified and the application shall be provided to the Board for approval.

**E.** For the purposes of A.R.S. Title 41, Chapter 6, Article 7.1, the Board establishes the following time-frames in days:

Certification, Permit, and School Approval Time-frames

| *Type of Application* | *Administrative Completeness Review Time* | *Substantive Review Time-frame* | *Overall Time-frame* |
|---|---|---|---|
| Certification or Permit | 30 | 30 | 60 |
| School Approval | 60 | 60 | 120 |

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Section repealed; new Section adopted effective December 9, 1998 (Supp. 98-4).

**R12-2-302. Repealed**

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Repealed effective December 9, 1998 (Supp. 98-4).

## ARTICLE 4. SCHOOLS OF PRACTICAL RADIOLOGIC TECHNOLOGY

**R12-2-401. Course Time-frames**
The time-frame for the course of study shall not be less than 6 months or more than 9 months for completion of 210 hours of didactic training and 480 hours clinical training.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-402. Clinical Training**

**A.** A school may provide clinical training in 1 general facility or 2 specific clinical facilities.

**B.** Types of clinical training facilities:

1. "General clinical facility" means a hospital, clinic, or doctor's office that provides clinical training in both chest and extremity radiography. The clinical training shall consist of a minimum of 12 examinations per day per student, of which 30 per cent are chest examinations and 70 per cent are extremity examinations.
2. "Specific clinical facility" means a hospital, clinic, or doctor's office that provides clinical training in chest or extremity radiography. A specific clinical training program shall include a minimum of 12 examinations per day per student. The training period at a specific clinical facility devoted to chest examinations shall not exceed 3 weeks. The training period at a specific clinical facility devoted to extremity examinations shall not exceed 9 weeks.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-403. Equipment and Facilities**

**A.** A school is not required to have an energized laboratory and equipment, but if utilized, the laboratory and equipment shall conform to Arizona Radiation Regulatory Agency rules.

**B.** A school shall maintain a library of current books, journals, and other reference material commonly used in and related to the curriculum and profession.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-404. Program Administration**

**A.** One or more individuals may be responsible for the school's administrative, supervisory, or educational duties. However, these responsibilities shall be clearly stated in the school's administrative policies.

**B.** The following personnel shall meet the listed minimum requirements:

1. The Program Director shall be responsible for the radiography educational program, and be one of the following:
   a. An Arizona certified radiologic technologist with a minimum of 2 years of post certification experience and 2 years of teaching experience in a diagnostic radiologic technology program or equivalent, as determined by the Board, or its duly authorized representative;
   b. A radiologic physicist certified by the American College of Radiology or equivalent, as determined by the Board, or its duly authorized representative, with at least 2 years of experience as an instructor in an academic course of study in diagnostic radiologic technology or equivalent, as determined by the Board, or its duly authorized representative; or
   c. A radiologist certified by the American College of Radiology, or equivalent, as determined by the Board, or its duly authorized representative, with at least 2 years of experience as a lecturer in an academic course of study in diagnostic radiologic technology or equivalent, as determined by the Board, or its duly authorized representative.
2. An instructor
   a. An instructor shall be qualified through academic preparation and experience to teach the assigned subjects, as determined by the Board, or its duly authorized representative. An instructor who is an Arizona certified radiologic technologist shall teach the following subjects:
      i. Adult and pediatric positioning (radiologic),
      ii. Physics and technical factors,
      iii. Film processing,
      iv. Quality control,
      v. Film critique,
      vi. Survey of human disease, and
      vii, Radiation protection
   b. A physician or other health professional shall teach a survey of human disease and a physicist or a radiologist shall teach radiation protection, quality control, and physics.
3. Clinical supervision shall be provided by an individual who is:
   a. An Arizona certified radiologic technologist with minimum of 2 years of post-certification experience; and
   b. Available during the training period in the clinical area when radiography procedures are being performed.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4). Amended by final rulemaking at 5 A.A.R. 1008, effective

March 18, 1999 (Supp. 99-1).

**R12-2-405. Didactic Training**

The required subjects and their minimum hours are as follows:

1. Professional ethics (5 hours).
   a. Definition of ethics, nature of ethics, and value of ethics to the practical technologist, patient, and medical profession.
   b. Professional secrecy and confidential knowledge regarding patients, physicians, and institutions;
   c. Practical technologist relationship to patients, other technologists, radiologists, attending physicians, and other members of the medical staff.
2. Office procedures (5 hours).
   a. An instructor shall stress office professionalism, including action, appearance, and speech. Special attention shall be given to handling telephone conversations so that essential information is obtained when scheduling radiography;
   b. Legal and ethical problems involving loan of radiographs, ordering examinations, ownership of equipment, visitors in the radiographic rooms, records, and use of equipment.
3. Anatomy, physiology, and medical terminology.
4. Adult and pediatric positioning (30 hours).
   a. General positioning nomenclature and terminology. An instructor shall familiarize each student with the terms: anterior, posterior, lateral, oblique, caudal, cephalad, tangential, supine, prone, upright, medial, flexion, extension, adduct, abduce and other terms used to correctly position patients for radiography;
   b. Procedure comprehension. Under classroom conditions, an instructor shall train each student so that the student is able to describe the anatomy visualized; describe the positions used, in terms of direction of the central ray and anatomical area of interest; name the size of film ordinarily used; describe patient preparation, if necessary; describe the special procedures applicable to radiographing specific regions of the body; identify radiographs of the basic radiographic positions; label the anatomic parts; explain variations in technical factors required for differences in patient habitus and similar anatomical areas of interest having different density and radiographic obstructions such as casts; explain how to avoid degradation of image quality from patient motion; and; describe variations in tube-film placement required to compensate for a patient's immobility.
   c. Procedure practice. In a laboratory situation, using a patient or a phantom, an instructor shall train each student so that the student is able to position the correct anatomical part, stabilizing or immobilizing the patient or phantom as needed; select the correct film size;~~,~~ align the x-ray tube to the anatomical part and film; and adjust the cone or collimator to the appropriate field size.
   d. Radiography of pediatric and geriatric patients. An instructor shall familiarize a student with the techniques necessary to sympathize and empathize with patients. In doing so, the instructor shall train each student to gain the patient's cooperation in obtaining a useful radiograph. Also, the instructor shall train each student to recognize the maneuverability of patients of all ages; devise methodologies necessary to obtain a satisfactory radiograph; relate with the patient in a manner which will not adversely affect a patient's psychological state; and provide comfort measures that will aid in obtaining high quality radiographs.
5. Physics and technical factors (50 hours).
   a. The structure of matter: the atom, elements, compounds, substances, mixtures, and modes of ionization.
   b. Production and properties of x-rays: nature of electromagnetic radiation, production of x-rays, interactions of x-ray with matter, detection of ionizing radiation, and specification of the x-ray beam.
   c. X-ray tubes: early x-ray tubes, modern x-ray tubes, stationary anode tubes, rotating anode tubes, types of tube cooling, tube housings and beam restricting systems, x-ray tube characteristics, focal spots, x-ray tube rating charts, and tube cooling charts.
   d. Radiographic algorithms of a latent image and the prime factors of radiography (milliamperage, time, distance, and kilovoltage).
   e. Factors affecting radiographic quality (density, detail, contrast distortion, and magnification) as related to chest and extremities.
   f. Calibration, heat loading of x-ray tubes, conditions influencing choice of exposure factors, filters, grids, cones, cylinders, diaphragms, calipers, cassettes, film holders, technique charts, and identification system.
   g. Discussions, problems, and experiments related to time, source image receptor distance, milliamperage, peak kilovoltage, and the relationships that can be established with combinations of each of these parameters, shall be provided to each student.
6. Processing (15 hours).
   a. Darkroom construction, equipment, and arrangement; illumination and test for illumination, and x-ray film: handling, developing, rinsing, fixing, washing, and drying.
   b. Preparation of solutions, types, care of processing apparatus, automatic processing, reduction of overexposed and underexposed radiographs, and film artifacts and their uses.
7. Quality control (10 hours). An instructor shall train each student in the following subject areas: evaluation of film system procedures, radiographic machines, image quality, film screens, film holders, and grids.
8. Film critique (20 hours).
   a. Patient's relevant clinical data: reasons for radiographic examination (pathology) and assessment of the patient during the radiographic examination.
   b. Technique employed: technical factors and source image receptor distance.
   c. Collimation and shielding: film size, field size, shielding, and markers.
   d. Positioning: basic positioning and devices.
   e. Anatomy: radiographic anatomy and anatomical anomalies.
   f. Radiographic quality: density, contrast, resolution, distortion and magnification, fog, grids, film screens, film processing, and image artifacts.
9. Survey of diseases (5 hours). Disease and injury encountered in the radiography of chest and extremities.
10. Nursing procedures (10 hours). An instructor shall train each student in patient care, including emergency procedures.
11. Radiation protection (30 hours).

a. Atomic structure, properties of radiation, modes of x-ray production, x-ray interaction with matter (absorption processes), units of radiation exposure and dosage, personal dosimetry and survey instruments, mechanisms of biological damage (stochastic and nonstochastic effects).
b. History and basic principles of radiation protection, standards for protection against ionizing radiation, including the principles of "ALARA" (As Low As Reasonably Achievable); methods for reducing exposure to personnel and patients, including the correct use of collimator, filtration, proper kilovoltage and milliamperage, time settings; formulation of x-ray exposure techniques; and special radiation protection measures for x-ray examinations. An instructor shall demonstrate the importance of time, distance and shielding, and scattering of x-rays.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4).
Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

**R12-2-406. School Approval**

**A.** An applicant seeking to open a Practical Radiologic Technology School shall apply to the Board by letter and shall address all of the issues in R12-2-401 through R12-2-405.
**B.** The Board shall review a school application in a timely manner as required in R12-2-301 and approve or deny the application.
**C.** The Board shall maintain a list of approved schools.

**Historical Note**
Adopted effective August 24, 1981 (Supp. 81-4).
Amended by final rulemaking at 5 A.A.R. 1008, effective March 18, 1999 (Supp. 99-1).

# TITLE 12. NATURAL RESOURCES

## CHAPTER 4. GAME AND FISH COMMISSION

(Authority: A.R.S. § 17-201 *et seq.*)

### ARTICLE 1. DEFINITIONS AND GENERAL PROVISIONS

Section
R12-4-101. Definitions
R12-4-102. Fees for Licenses, Tags, Stamps, and Permits
R12-4-103. Duplicate Tags and Licenses
R12-4-104. Application Procedures for Issuance of Hunt Permit-tags by Drawing
R12-4-105. License Dealer's License
R12-4-106. Licensing Time-frames
R12-4-107. Bonus Point System
R12-4-108. Management Unit Boundaries
R12-4-109. Wildlife areas
R12-4-110. Posting and access to state land
R12-4-111. Identification Number
R12-4-112. Diseased or injured wildlife
R12-4-113. Small game depredation permit
R12-4-114. Issuance of Nonpermit-tags and Hunt Permit-tags
R12-4-115. Depredation Hunts
R12-4-116. Reward payments
R12-4-117. Indian reservations
R12-4-118. Repealed
R12-4-119. Arizona Game and Fish Department Reserve
R12-4-120. Issuance, sale, and transfer of special big game license tags
R12-4-121. Repealed
R12-4-122. Handling, transportation, processing and storing of game meat given to public institutions and charitable organizations
R12-4-123. Expenditure of Funds

### ARTICLE 2. MISCELLANEOUS LICENSES AND PERMITS

Section
R12-4-201. Pioneer license
R12-4-202. Disabled veteran's license
R12-4-203. National Harvest Information Program
R12-4-204. Repealed
R12-4-205. Repealed
R12-4-206. Repealed
R12-4-207. Repealed
R12-4-208. Guide License
R12-4-209. Repealed
R12-4-210. Repealed
R12-4-211. Repealed
R12-4-212. Repealed
R12-4-213. Repealed
R12-4-214. Repealed
R12-4-215. Tournament Fishing Permit Regulations
R12-4-216. Crossbow Permit
R12-4-217. Challenged Hunters Access\Mobility Permit
R12-4-218. Repealed
R12-4-219. Renumbered
R12-4-220. Repealed

### ARTICLE 3. TAKING AND HANDLING OF WILDLIFE

Section
R12-4-301. Restrictions for Taking Wildlife in Maricopa County Parks
R12-4-302. Use of Tags
R12-4-303. Prohibited Devices and Ammunition
R12-4-304. Lawful Methods for Taking Wild Mammals, Birds and Reptiles
R12-4-305. Possessing, Transporting, Importing, Exporting, and Selling Carcasses or Parts of Wild Mammals, Birds, and Reptiles
R12-4-306. Buffalo hunt regulations
R12-4-307. Trapping Regulations: Licensing; Methods; Tagging of Bobcat Pelts
R12-4-308. Wildlife Inspections, Check Stations, and Roadblocks
R12-4-309. Restricted Hunts
R12-4-310. Fishing Permits
R12-4-311. Exemptions from requirement to possess an Arizona fishing license while taking aquatic wildlife
R12-4-312. Special use permits and stamps for fishing on waters with shared jurisdiction
R12-4-313. Lawful Methods of Taking Aquatic Wildlife; Restrictions
R12-4-314. Possession, Sale, Transportation, and Importation of the Carcasses and Parts of Aquatic Wildlife
R12-4-315. Possession of live fish; unattended live boxes and stringers
R12-4-316. Possession, transportation, and importation of live baitfish, crayfish, and waterdogs
R12-4-317. Repealed
R12-4-318. Seasons
R12-4-319. Emergency expired

### ARTICLE 4. LIVE WILDLIFE

*New Article 4, consisting of Sections R12-4-401 through R12-4-420, R12-4-422, and R12-4-424 through R12-4-428 adopted effective April 28, 1989.*

*Former Article 4, Commission Orders, consisting of Sections R12-4-401 through R12-4-424, R12-4-429 through R12-4-431, R12-4-440 through R12-4-443 expired. See R12-4-118.*

Section
R12-4-401. Live Wildlife Definitions
R12-4-402. Live wildlife: prohibited acts
R12-4-403. Escaped or released live wildlife
R12-4-404. Possession of Live Wildlife Taken on an Arizona Hunting or Fishing License
R12-4-405. Importing, Purchasing, and Transporting Live Wildlife Without an Arizona License or Permit
R12-4-406. Restricted Live Wildlife
R12-4-407. Exemptions from Special License Requirements for Restricted Live Wildlife
R12-4-408. Holding wildlife for the Department
R12-4-409. General Provisions and Penalties for Special Licenses
R12-4-410. Aquatic Wildlife Stocking Permit
R12-4-411. Minnow dealer's license
R12-4-412. Tuberculosis Procedures for Cervidae Possessed by Special License
R12-4-413. Private Game Farm License
R12-4-414. Shooting preserve license
R12-4-415. Field trial license
R12-4-416. Field Trial Training Permit
R12-4-417. Wildlife holding permit
R12-4-418. Scientific Collecting Permit
R12-4-419. Wildlife hobby license
R12-4-420. Zoo License
R12-4-421. Wildlife Service License

R12-4-422. Falconers: Licensing and Requirements
R12-4-423. Wildlife Rehabilitation License
R12-4-424. White Amur Stocking License
R12-4-425. Restricted live wildlife lawfully possessed without license or permit prior to the effective date of Article 4
R12-4-426. Expired
R12-4-427. Rehabilitation Exemption
R12-4-428. Captivity standards

## ARTICLE 5. BOATING AND WATER SPORTS

*Article 5 Article heading amended effective November 7, 1996 (Supp. 96-4).*

Section
R12-4-501. Boating and Water Sports Definitions
R12-4-502. Application for Watercraft Registration
R12-4-503. Renewal of Watercraft Registration
R12-4-504. Staggered Watercraft Registration Schedule; Penalty for Late Registration
R12-4-505. Hull Identification Numbers
R12-4-506. Invalidation of Watercraft Registration
R12-4-507. Application for Registration of Abandoned or Unreleased Watercraft
R12-4-508. New Watercraft Exchanges
R12-4-509. Watercraft Agents
R12-4-510. Refunds for Renewals
R12-4-511. Personal Flotation Devices
R12-4-512. Fire Extinguishers Required for Watercraft
R12-4-513. Watercraft Casualty Reports
R12-4-514. Liveries
R12-4-515. Display of Numbers and Decals
R12-4-516. Watercraft Sound Level Restriction
R12-4-517. Watercraft and Boat Engine Restrictions
R12-4-518. Regattas
R12-4-519. Reciprocity
R12-4-520. Arizona Uniform State Waterway Marking System
R12-4-521. Placing or Tampering with Regulatory Markers or Aids to Navigation
R12-4-522. Establishment of Controlled-Use Markers
R12-4-523. Controlled Operation of Watercraft
R12-4-529. Repealed
R12-4-541. Repealed
R12-4-542. Repealed
R12-4-543. Repealed
R12-4-544. Repealed
R12-4-545. Repealed

## ARTICLE 6. RULES OF PRACTICE BEFORE THE COMMISSION

*Article 6, consisting of Sections R12-4-601 through R12-4-606, adopted and Section R12-4-115 renumbered as Section R12-4-607, effective December 22, 1987.*

Section
R12-4-601. Petition for rule
R12-4-602. Written comment on proposed rules
R12-4-603. Oral Proceedings Before the Commission
R12-4-604. *Ex parte* communication
R12-4-605. Standards for revocation and denial of right to obtain license
R12-4-606. Proceedings for License Revocation, Denial of Right to Obtain License, and Civil Damages
R12-4-607. Rehearing or Review of Commission Decisions
R12-4-608. Appeal from Department Action
R12-4-609. Commission Orders; Emergency Seasons
R12-4-610. Petition for Requesting Closure of Hunting, Fishing, or Trapping Privileges on State or Federal Lands

## ARTICLE 7. HERITAGE GRANTS

*Article 7, consisting of Sections R12-4-701 through R12-4-712, adopted effective July 12, 1996 (Supp. 96-3).*

Section
R12-4-701. Heritage Grant Definitions
R12-4-702. General Provisions
R12-4-703. Review and Modification of Proposals
R12-4-704. Urban Wildlife and Urban Wildlife Habitat Grants
R12-4-705. Public Access Grants
R12-4-706. Environmental Education Grants
R12-4-707. Schoolyard Habitat Grants
R12-4-708. IIAPAM: Grants for Identification, Inventory, Acquisition, Protection, and Management of Sensitive Habitat
R12-4-709. Grant Applications
R12-4-710. State Historic Preservation Office Certification
R12-4-711. Participant Agreements
R12-4-712. Reporting and Record Requirements

## ARTICLE 1. DEFINITIONS AND GENERAL PROVISIONS

### R12-4-101. Definitions

**A.** In addition to the definitions provided in A.R.S. § 17-101, R12-4-401, and R12-4-501, the following definitions apply to this Chapter, unless the context otherwise requires:

1. "Artificial lures and flies" means man-made devices intended as visual attractants for fish and shall not include living or dead organisms or edible parts thereof, natural or prepared food stuffs, artificial salmon eggs, artificial corn, or artificial marshmallows.
2. "Commission order" means a document adopted by the Commission which may do any or all of the following: Open, close or alter seasons and open areas for taking wildlife; specify wildlife which may or may not be taken; set bag or possession limits for wildlife; or set the number of permits available for limited hunts.
3. "Crayfish net" means a net not to exceed 24 inches on a side or in diameter that is retrieved by means of a hand-held line.
4. "Falconry" means the sport of taking quarry by means of a trained raptor.
5. "Hunt area" means a game management unit, portion of unit, or group of units opened to hunting by a particular hunt number.
6. "Hunt number" means the number assigned by Commission order to any hunt area where a limited number of hunt permits is available.
7. "Hunt permits" means the number of hunt permit-tags made available to the public as a result of a Commission order.
8. "Hunt permit-tag" means a tag for a hunt for which the Commission has assigned a hunt number.
9. "Identification number" means a number assigned to each applicant or licensee by the Department, as described in R12-4-111.
10. "License dealer" means a business authorized to sell hunting, fishing and other licenses pursuant to R12-4-105.
11. "Live baitfish" means any species of live freshwater fish designated by Commission Order as lawful for use in taking aquatic wildlife pursuant to R12-4-313.
12. "Management unit" means an area established by the Commission for management purposes.
13. "Minnow trap" means a trap with dimensions not to exceed 12 inches in depth, 12 inches in width and 24 inches in length.
14. "Muzzle-loading handgun" means a firearm intended to be fired from the hand, incapable of firing fixed ammunition, having a single barrel and single chamber, and loaded through the muzzle with black powder or synthetic black powder and a single projectile.
15. "Muzzle-loading rifle" means a weapon intended to be fired from the shoulder, incapable of firing fixed ammunition, having a single barrel and single chamber, and loaded through the muzzle with black powder or synthetic black powder and a single projectile.
16. "Nonpermit-tag" means a tag for a hunt for which the Commission has not assigned a hunt number.
17. "Simultaneous fishing" means the taking of fish by two lines and not to exceed two hooks or two artificial lures or flies per line.
18. "Sink box" means a low floating device, having a depression affording the hunter a means of concealment beneath the surface of the water.
19. "Tag" means the authorization that an individual is required to obtain from the Department under A.R.S. Title 17 and these rules before taking certain wildlife.
20. "Waterdog" means the larval or metamorphosing stage of salamanders.
21. "Wildlife area" means an area established pursuant to R12-4-109.

**B.** When the following terms are used in Commission order, these definitions apply:

1. "Antlered" means having an antler fully erupted through the skin and capable of being shed.
2. "Bearded turkey" means a turkey with a beard that extends beyond the contour feathers of the breast.
3. "Buck antelope" means a male pronghorn antelope with a horn longer than its ear.
4. "Bull elk" means an antlered elk.
5. "Ram" means any male bighorn sheep, excluding male lambs.

**C.** This rule is effective January 1, 1996.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Amended effective October 22, 1976 (Supp. 76-5). Amended effective June 29, 1978 (Supp. 78-3). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-01 renumbered as Section R12-4-101 without change effective August 13, 1981 (Supp. 81-4). Amended effective April 22, 1982 (Supp. 82-2). Amended subsection (A), paragraph (10) effective April 7, 1983 (Supp. 83-2). Amended effective June 4, 1987 (Supp. 87-2). Amended subsection (A) effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended subsection (A) effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective May 27, 1992 (Supp. 92-2). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-102. Fees for Licenses, Tags, Stamps, and Permits**

**A.** The following fees for licenses, stamps, and tags established within maximum limits authorized by A.R.S. § 17-333(A), including surcharges authorized by A.R.S. § 17-345, shall be required at the time of application.

**B.** Hunting and fishing license fees:

| | | | |
|---|---|---|---|
| 1. | Class A, general fishing license | Resident | $ 12.00 |
| | | Nonresident | $ 38.00 |
| 2. | Class B, four-month fishing license | Nonresident | $ 22.00 |
| 3. | Class C, five-day fishing license | Nonresident | $ 18.50 |
| 4. | Class D, one-day fishing license | Resident or Nonresident | $ 8.00 |
| 5. | Class E, Colorado River only fishing license | Nonresident | $ 32.50 |
| 6. | Class F, combination hunting and fishing license | Resident Adult | $ 34.00 |
| | Youth fee applies before and through the calendar year of the applicant's 20th birthday. | Resident or Nonresident Youth | $ 18.00 |
| | | Nonresident Adult | $ 100.00 |
| 7. | Class G, general hunting license | Resident | $ 18.00 |
| | | Nonresident | $ 85.50 |
| 8. | Class H, three-day hunting license | Nonresident | $ 38.00 |
| 9. | Resident youth group two-day fishing license | | $ 25.00 |
| 10. | Urban fishing license | Resident or Nonresident | $ 12.00 |

**C.** Big game tag fees:

| | | | |
|---|---|---|---|
| 1. | Antelope tag | Resident | $ 50.00 |
| | | Nonresident | $ 250.00 |
| 2. | Bear tag | Resident | $ 11.00 |
| | | Nonresident | $ 150.00 |
| 3. | Bighorn sheep tag | Resident | $ 150.00 |
| | | Nonresident | $ 750.00 |
| 4. | Buffalo permit tag | | |
| | a. Adult bulls or any buffalo | Resident | $ 750.00 |
| | | Nonresident | $ 3,750.00 |
| | b. Adult cows | Resident | $ 450.00 |
| | | Nonresident | $ 2,250.00 |
| | c. Yearling | Resident | $ 240.00 |
| | | Nonresident | $ 1,200.00 |
| 5. | Deer tag and archery deer tag | Resident | $ 14.50 |
| | | Nonresident | $ 75.50 |
| 6. | Elk tag | Resident | $ 60.00 |
| | | Nonresident | $ 300.00 |
| 7. | Javelina tag and archery javelina tag | Resident | $ 9.50 |
| | | Nonresident | $ 50.50 |
| 8. | Mountain lion tag | Resident | $ 11.00 |
| | | Nonresident | $ 150.00 |
| 9. | Turkey tag and archery turkey tag | Resident | $ 8.50 |
| | | Nonresident | $ 50.50 |

**D.** Stamps and special use permit fees:

| | | | |
|---|---|---|---|
| 1. | Arizona Colorado River special use permit stamp, for use by California fishing licensees | Resident or Nonresident | $ 3.00 |
| 2. | Arizona Colorado River special use stamp, for use by Nevada fishing licensees | Resident or Nonresident | $ 3.00 |
| 3. | Arizona Lake Powell stamp, for use by resident Utah licensees | | $ 3.00 |
| 4. | Bobcat permit tag (Effective 10-1-96) | | $ 2.00 |
| 5. | Sandhill crane permit | Resident or Nonresident | $ 5.00 |
| 6. | State waterfowl stamp, validates Class F, G, or H license for ducks, geese, and swans | Resident or Nonresident | $ 5.50 |
| 7. | Trout stamp; when affixed to the back of the license, validates Class A license for trout | Resident or Nonresident | $ 10.00 |
| 8. | Two-pole stamp; when affixed to the back of a Class A, B, C, D, E, F, pioneer or urban fishing license, allows simultaneous fishing as defined in R12-4-101. | Resident or Nonresident | $ 4.00 |

**E.** Other license fees:

| | | | |
|---|---|---|---|
| 1. | Falconer license | | $ 75.00 |
| 2. | Field trial license | | $ 5.00 |
| 3. | Fur dealer's license | | $ 100.00 |
| 4. | Guide license | Resident | $ 100.00 |
| | | Nonresident | $ 100.00 |
| 5. | License dealer's license | | $ 75.00 |
| 6. | Minnow dealer's license | | $ 30.00 |
| 7. | Private game farm license | | $ 40.00 |
| 8. | Shooting preserve license | | $ 100.00 |
| 9. | Taxidermist license | | $ 50.00 |
| 10. | Trapping license (Effective 10-1-96) | Resident | $ 10.00 |
| | | Nonresident | $ 50.00 |
| | | Resident juvenile | $ 10.00 |
| 11. | White amur stocking license | | $ 100.00 |
| 12. | Wildlife hobby license | | $ 5.00 |
| 13. | Zoo license | | $ 100.00 |

**F.** Administrative fees:

| | | | |
|---|---|---|---|
| 1. | Duplicate fee; duplicates are not issued for trout stamps, Arizona Colorado River special use permits, Arizona Colorado River special use stamps, Arizona Lake Powell stamps, or state waterfowl stamps | | $ 3.00 |
| 2. | Permit application fee | | $ 3.00 |
| 3. | Kaibab North special deer hunting permit | Resident or Nonresident | $ 5.00 |

**G.** This rule is effective January 1, 1997.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Amended effective March 31, 1977 (Supp. 77-2). Amended effective June 28, 1977 (Supp. 77-3). Amended effective October 20, 1977 (Supp. 77-5). Amended effective January 1, 1979 (Supp. 78-6). Amended effective June 4, 1979 (Supp. 79-3). Amended effective January 1, 1980 (Supp. 79-6). Amended paragraphs (1), (7) through (11), (13), (15), (29), (30), and (32) effective January 1, 1981 (Supp. 80-5). Former Section R12-4-30 renumbered as Section R12-4-102 without change effective August 13, 1981. Amended effective August 31, 1981 (Supp. 81-4). Amended effective September 15, 1982 unless otherwise noted in subsection (D) (Supp. 82-5). Amended effective January 1, 1984 (Supp. 83-4). Amended subsections (A) and (C) effective January 1, 1985 (Supp. 84-5). Amended effective January 1, 1986 (Supp. 85-5). Amended subsection (A), paragraphs (1), (2), (8) and (9) effective January 1, 1987; Amended by adding a new subsection (A), paragraph (31) and renumbering accordingly effective July 1, 1987. Both amendments filed November 5, 1986 (Supp. 86-6). Amended subsections (A) and (C) effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended subsections (A) and (C) filed December 30, 1988, effective January 1, 1989"; Amended subsection (C) effective April 28, 1989 (Supp. 89-2). Section R12-4-102 repealed, new Section R12-4-102 filed as adopted November 26, 1990, effective January 1, 1991 (Supp. 90-4). Amended effective September 1, 1992; filed August 7, 1992 (Supp. 92-3). Amended effective January 1, 1993; filed December 18, 1993 (Supp. 92-4). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4). Amended effective December 16, 1995 (Supp. 94-4). Amended effective January 1, 1997; filed in the Office of the Secretary of State November 14, 1995 (Supp. 95-4). Amended subsection (D), paragraph (4), and subsection (E), paragraph (10), effective October 1, 1996; filed in the Office of the Secretary of State July 12, 1996 (Supp. 96-3). Amended subsection (B), paragraph (6) and subsection (E) paragraph (4), effective January 1, 1997; filed with the Office of the Secretary of State November 7, 1996 (Supp. 96-4).

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**R12-4-103. Duplicate Tags and Licenses**

**A.** Pursuant to A.R.S. § 17-332(C), the Department and its license dealers shall issue a duplicate license or tag to an applicant who pays the fee set forth at R12-4-102 and signs an affidavit affirming:
1. The applicant's name and identification number if previously issued to the applicant.
2. The purchase of an original license or tag.
3. The resident status and class of the original license or tag.
4. The approximate date it was purchased.
5. The license dealer from whom it was purchased.
6. That the original tag for which a duplicate is being purchased was unused and is lost, destroyed, mutilated, or otherwise unusable.

**B.** This rule is effective January 1, 1996.

**Historical Note**

Amended effective June 7, 1976 (Supp. 76-3). Amended effective October 20, 1977 (Supp. 77-5). Former Section R12-4-07 renumbered as Section R12-4-103 without change effective August 13, 1981 (Supp. 81-4). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-104. Application Procedures for Issuance of Hunt Permit-tags by Drawing**

**A.** For the purposes of this Section, "group" means all applications contained in a single envelope that is provided as part of Form 624. No more than 4 individuals may apply as a group except that no more than 2 individuals may apply as a group for bighorn sheep. Nonresidents, see R12-4-114(D).

**B.** Applications for hunt permit-tags shall be made on Form 624, Hunt Permit-tag Application, available at Department offices and license dealers and received at times and locations established by the hunt permit-tag application schedule which is published annually by the Department and available at Department offices and license dealers.

**C.** Each applicant, including each member of a group, shall sign the application Form 624 and provide the following information: name, address, residency status, and date of birth. In addition:
1. Each applicant shall include the applicant's identification number.
2. Each applicant shall include the number of his or her Class F or G hunting license for the year in which the hunt will take place, the number of his or her complimentary pioneer or disabled veteran's license, or:
   a. Applicants not licensed for the year in which the hunt will take place shall obtain a Form 390, License Application, from a Department office or license dealer and shall submit the completed Form 390, providing the applicant's name, identification number, address, class of license for which application is made, residency status, length of Arizona residency (if applicable), date of birth, sex, weight, height, and color of hair and eyes, to the Department in the same envelope with the Form 624.
   b. An unlicensed juvenile applying for a hunt other than big game and not required to have a license shall indicate "juvenile" in the space provided for the license number.
3. Each applicant shall enclose fees as set in R12-4-102 for the following:
   a. The fee for the appropriate hunt permit-tag;
   b. A permit application fee;
   c. If a license is requested, fee for the license.
4. Each payment enclosed with a hunt permit-tag application shall be made payable to the Arizona Game and Fish Department by certified check, cashier's check, money order, or personal check or draft. Cash shall not be accepted.
5. Each applicant shall check the appropriate resident or nonresident box and sign his or her own application.
6. Each applicant shall apply for a specific hunt by the current hunt number. If all hunts selected by the applicant are filled at the time the application is received, the Department shall deem the application unsuccessful.
7. An applicant shall make all hunt choices within 1 application for the same genus.
8. Applications for different genera of wildlife shall not be included in the same envelope.
9. All members of a group shall apply for the same hunt numbers and in the same order of preference. The Department shall not issue a hunt permit-tag to any group member unless sufficient hunt permit-tags are available for all group members. If the Department rejects any member of a group for any reason, the Department shall reject all other members of the group.
10. An applicant shall submit only 1 valid application per genus of wildlife for any calendar year, except:
    a. When the bag limit is 1 per calendar year, an unsuccessful applicant may re-apply for remaining hunt permit-tags in unfilled hunt areas, as specified in the hunt permit-tag application schedule published annually by the Department.
    b. Turkey hunters with a hunt permit-tag for the spring turkey season who are unsuccessful in the spring turkey season may apply for a hunt permit-tag for the fall turkey season.
    c. When the bag limit is more than 1 per calendar year, any person may apply as specified in the hunt permit-tag application schedule published annually by the Department for remaining hunt permit-tags in unfilled hunt areas.
11. It is unlawful for any person to apply for a bighorn sheep or buffalo hunt permit-tag when that person has taken the bag limit for that species.
12. To participate in the bonus point system, applicants shall comply with R12-4-107.

**D.** Any application not prepared or submitted in accordance with this rule is not valid and shall be rejected and all fees refunded.

**E.** Any hunt permit-tag issued for an application that is subsequently found not to be in accordance with this rule is invalid.

**F.** Hunt permit-tags shall be mailed to successful applicants. Overpayments and hunt permit-tag and license fees received with unsuccessful applications shall be returned to applicant "A", as shown on Form 624. Applicant fees received with valid applications shall not be refunded.

**G.** If the Director determines that Department error resulted in the rejection of an application for a hunt permit-tag, the Director may authorize additional hunt permit-tags in order to correct the error, provided the issuance of additional permits will have no significant impact on the wildlife population to be hunted. Any applicant who is denied a hunt permit-tag under this procedure may appeal to the Commission as provided in R12-4-608.

**H.** This rule is effective January 1, 1996.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Amended effective June 28, 1977 (Supp. 77-3). Amended effective July 24, 1978 (Supp. 78-4). Former Section R12-4-06 renumbered as Section R12-4-104 without change effective August 13, 1981. Amended subsections (N), (O), and (P) effective August 31, 1981 (Supp. 81-4). Former Section R12-4-104 repealed, new Section R12-4-104 adopted effective May 12, 1982 (Supp. 82-3). Amended subsection (D) as an emergency effective December 27, 1982, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 82-6). Emergency expired. Amended effective June 20, 1983 (Supp. 83-3). Amended subsection (F)(3) effective September 12, 1984. Amended subsection (F)(9) and added subsections (F)(10) and (G)(3) effective October 31, 1984 (Supp. 84-5). Amended effective May 5, 1986 (Supp. 86-3). Amended effective June 4, 1987 (Supp. 87-2). Section R12-4-104 repealed, new Section R12-4-104 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-105. License Dealer's License**

**A.** For the purposes of this rule, unless the context otherwise requires:
1. "Dealer outlet" means an individual location authorized to sell licenses by a license dealer's license.
2. "Dealer number" means a number assigned by the Department to each dealer outlet.
3. "License" means any hunting or fishing license, stamp, tag, or permit which may be sold by a dealer outlet pursuant to this rule.
4. "License dealer" means a business licensed by the Department to sell licenses from 1 or more dealer outlets.

**B.** The Department shall issue a license dealer's license when the following criteria are met:
1. The applicant has not had the privilege to sell licenses for the Department revoked or canceled pursuant to A.R.S. §§ 17-334, 17-338, or 17-339 within the past 2 calendar years;

2. The applicant's credit record or assets assure the Department that the value of the licenses shall be adequately protected;
3. The applicant agrees to assume financial responsibility for licenses provided to dealer outlets by the Department at the maximum value established in R12-4-102, less the dealer commission allowed by A.R.S.§ 17-338(B); and
4. Each dealer outlet specializes in the sale of, or has a department specializing in the sale of, equipment intended for hunting, trapping, or fishing; or
5. The Department shall assess the need for a license dealer outlet not meeting the criterion set forth at subsection (B)(4) by determining whether a particular outlet is necessary to provide service to the public. The Department shall base its determination on:
   a. The location and size of the community and the outlet's physical location within the community;
   b. The outlet's proximity to currently existing dealer outlets; and
   c. The days and hours the license dealer outlet is open for business to sell hunting and fishing licenses, tags, and stamps.

**C.** Upon denial of a license dealer's license by the Department, the applicant may appeal to the Commission pursuant to R12-4-608.

**D.** An applicant for a license dealer's license shall obtain from and submit to the Department an application form. The Department shall issue the license or deny the application within 30 calendar days of receiving the application. The applicant shall provide the following:
1. Principal business or corporation name, address, and phone number;
2. If not a corporation, the full name, address, and phone number of all owners;
3. Name, business address, and business phone number of the person designated by the applicant as responsible for compliance with this rule;
4. Whether the applicant has previously sold licenses pursuant to A.R.S. § 17-334;
5. Whether application is for renewal of a currently existing license dealer's license;
6. Credit references and a statement of assets and liabilities;
7. The name, address, and phone number of each dealer outlet, and the name of a person responsible for the sale of licenses at each dealer outlet;
8. For each outlet, whether the outlet specializes in the sale of hunting, trapping or fishing equipment; if not, the reason the outlet should be approved pursuant to subsection (B)(5) of this rule.

**E.** A request to add dealer outlets to a license dealer's license during a license year shall be made on an amended application containing the information required in subsection (D).

**F.** The Department shall provide to the license dealer all licenses that the license dealer will make available to the public for sale.

**G.** A license dealer shall maintain at each outlet an inventory of licenses for sale to the public. A license dealer may request that the Department provide additional inventory of licenses for sale. The request may be made in writing or verbally. The request shall include the name of the license dealer, the assigned dealer number, a list of the items needed, and the name of the individual making the request. Within 10 calendar days from receipt of a request from a license dealer, the Department shall provide to an outlet the licenses requested unless licenses previously provided to the outlet have not been acknowledged pursuant to subsection (H) or the outlet is not in compliance with applicable statutes and rules.

**H.** Upon receipt of licenses from the Department, the license dealer shall cause the licenses received to be verified as the licenses identified on the shipment inventory provided by the Department with the shipment. The individual performing the verification shall clearly designate any discrepancies on the shipment inventory, sign and date the shipping inventory, and return it to the Department within 5 working days from receipt of the shipment. The Department shall verify any discrepancies identified by the license dealer and credit or debit the license dealer's inventory for a particular outlet accordingly.

**I.** A license dealer shall submit the monthly report required by A.R.S. § 17-338 on forms obtained from the Department regardless of whether the license dealer made a sale during the month. The license dealer shall include in the monthly report the following information for each outlet:
1. Name of dealer outlet and assigned dealer number;
2. Reporting period;
3. Number of sales and dollar amount of sales for reporting period, by type of license sold;
4. Dollar amount of commission;
5. Debit and credit adjustments for previous reporting periods;
6. Affidavits received and for which a duplicate was issued pursuant to R12-4-103. A license dealer who fails to submit an affidavit for an issued duplicate shall remit to the Department the face value of the original license replaced;
7. List of lost or missing licenses; and
8. Signature of preparer.

**J.** The Department shall give written notice of suspension and demand to return all inventory within 5 calendar days to any license dealer who:
1. Fails to remit monies due the Department pursuant to A.R.S. § 17-338; or
2. Issues to the Department more than 1 check with insufficient funds during a calendar year; or
3. Fails to comply with any part of this rule.

**K.** The value of licenses not returned to the Department pursuant to A.R.S. § 17-339, or upon termination of business by a dealer outlet, or which are reported by a dealer outlet or discovered by the Department to be lost, missing, stolen, or destroyed for any reason, shall be due and payable to the Department within 15 working days of the date the Department provides written notice to the licensed dealer.

**L.** In addition to those causes provided at A.R.S. §§ 17-334, 17-338 and 17-339, the Commission may revoke a license dealer's license when the licensed dealer or an employee of the licensed dealer is convicted of counseling, aiding, or attempting to aid any person in obtaining a fraudulent license.

**M.** This rule is effective January 1, 1996.

**Historical Note**

Amended effective June 7, 1976 (Supp. 77-3). Former Section R12-4-08 renumbered as Section R12-4-105 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-105 repealed, new Section R12-4-105 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-105 repealed, new Section R12-4-105 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-106. Licensing Time-frames**

**A.** As required by A.R.S. § 41-1072 et seq., the Department shall either grant or deny the following licenses within the listed time-frames. All periods listed are calendar days, and all are maximum time periods. Licenses may be reviewed and issued or denied in less time.

| Name of License | Governing Rule | Administrative Completeness Review Time-Frame | Substantive Review Time-Frame | Overall Time-Frame |
|---|---|---|---|---|
| Aquatic Wildlife Stocking Permit | R12-4-410 | 10 days | 170 days | 180 days |
| Challenged Hunter Access/ Mobility Permit | R12-4-217 | 1 day | 29 days | 30 days |
| Crossbow Permit | R12-4-216 | 1 day | 29 days | 30 days |
| Disabled Veteran's License | R12-4-202 | 1 day | 29 days | 30 days |
| Falconer License | R12-4-422 | 10 days | 20 days | 30 days |
| Field Trial License | R12-4-415 | 10 days | 20 days | 30 days |
| Field Trial Training Permit | R12-4-416 | 10 days | 20 days | 30 days |
| Fishing Permits | R12-4-310 | 10 days | 20 days | 30 days |
| Guide License | R12-4-208 | 10 days | 20 days | 30 days |
| License Dealer's License | R12-4-105 | 10 days | 20 days | 30 days |
| Minnow Dealer's License | R12-4-411 | 10 days | 20 days | 30 days |
| Pioneer License | R12-4-201 | 1 day | 29 days | 30 days |
| Private Game Farm License | R12-4-413 | 10 days | 20 days | 30 days |
| Scientific Collecting Permit | R12-4-418 | 10 days | 20 days | 30 days |
| Shooting Preserve License | R12-4-414 | 10 days | 20 days | 30 days |
| Tournament Fishing Permit | R12-4-215 | 10 days | 20 days | 30 days |
| Watercraft Agents | R12-4-509 | 10 days | 20 days | 30 days |
| White Amur Stocking License | R12-4-424 | 10 days | 20 days | 30 days |
| Wildlife Hobby License | R12-4-419 | 10 days | 20 days | 30 days |
| Wildlife Holding Permit | R12-4-417 | 10 days | 20 days | 30 days |
| Wildlife Rehabilitation License | R12-4-423 | 10 days | 50 days | 60 days |
| Wildlife Service License | R12-4-421 | 10 days | 50 days | 60 days |
| Zoo License | R12-4-420 | 10 days | 20 days | 30 days |

**B.** Issuance of Special License Tags is governed by R12-4-120. Proposals are accepted between July 1 and September 30 of each year. Administrative review is completed by the Department within 5 days. The Game and Fish Commission makes its decision on issuance or denial in an open meeting within 30 days after the closing date for proposals. The substantive review time-frame is 115 days and the overall time-frame is 120 days.

**Historical Note**

Editorial correction subsections (F) through (G) (Supp. 78-5). Former Section R12-4-09 renumbered as Section R12-4-106 without change effective August 13, 1981 (Supp. 81-4). Repealed effective May 27, 1992 (Supp. 92-2). New Section adopted June 10, 1998 (Supp. 98-2).

**R12-4-107. Bonus Point System**

**A.** The bonus point system grants each person 1 entry in each drawing for elk, buffalo, bighorn sheep, antelope, or deer for each bonus point which that person has accumulated under this rule. Each bonus point entry is in addition to the entry normally granted by R12-4-104. When processing "group" applications as defined in R12-4-104, the Department shall use the average number of bonus points accumulated by the persons in the group, rounded to the nearest whole number. If the average is .5, the total will be rounded up to the next highest number.

**B.** The Department shall award 1 bonus point each time a person submits a valid but unsuccessful application for a hunt permit-tag, provided that:

1. The application is not for hunt permit-tags left over after the drawing which are available on a first-come, first-served basis as prescribed in R12-4-114; and
2. Prior to the drawing, the person has purchased a hunting license valid for the year in which the hunt will take place. The applicant shall either provide the hunting license number on the application, or submit an application and fees for the license with the drawing application, indicating that the applicant is to be issued the license even if not drawn.

**C.** Each bonus point accumulated is valid only for the genus designated on the unsuccessful application.

**D.** Except for permanent bonus points awarded for hunter education, all of a person's accumulated bonus points for a genus are forfeited when:

1. The person is issued a hunt permit-tag for that genus; or
2. When the person fails to apply for a hunt permit-tag for that genus for 5 consecutive years.

**E.** The Department shall award 1 permanent bonus point for each genus upon a person's 1st graduation from the Department's Arizona Hunter Education Course or for serving as a Department hunter education instructor.
1. The Department shall credit persons who graduated after January 1, 1980, but prior to January 1, 1991, or persons certified by the Department as active hunter education instructors after January 1, 1980, with 1 permanent bonus point for each genus if the person provides the following information on a form available from the Department: Department identification number; name; address; residency status and length of Arizona residency, if applicable; date of birth; sex; weight; height; color of hair and eyes; and, for persons other than instructors, the month and year of graduation from the Department's Arizona Hunter Education Course.
2. An instructor or a person who has graduated shall submit the required form 30 days prior to a drawing's application date deadline, specified in the hunt permit-tag application schedule, in order for the bonus point to be counted by the Department in that drawing.

**F.** The Department shall place each applicant's total number of bonus points accumulated on the applicant's notice of unsuccessful application. If the applicant disagrees with the total, the applicant shall provide previous notices or proof of compliance with subsection (E) to prove Department error. In the event of an error, the Department shall correct the applicant's record.

**G.** The Department shall record bonus points under each applicant's Department identification number and the genus on the application. The Department shall not transfer bonus points between persons or genera.

**H.** This rule is effective January 1, 1999.

**Historical Note**

Former Section R12-4-03 renumbered as Section R12-4-107 without change effective August 13, 1981 (Supp. 81-4). Section R12-4-107 repealed, new Section R12-4-107 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective July 29, 1992 (Supp. 92-3). Section R12-4-107 repealed, new Section R12-4-107 adopted effective January 1, 1999; filed with the Office of the Secretary of State February 9, 1998 (Supp. 98-1).

**R12-4-108. Management Unit Boundaries**

**A.** For the purposes of this rule, parentheses mean "also known as," and the following definitions shall apply:
1. "FH" means "forest highway," a paved road.
2. "FR" means "forest road," an unpaved road.
3. "Hwy" means "Highway."

**B.** The state of Arizona shall be divided into units for the purpose of managing wildlife. Each unit shall be identified by a number, or a number and letter.

**C.** Management unit descriptions are as follows:

Unit 1 -- Beginning at the New Mexico state line and U.S. Hwy 60; west on U.S. Hwy 60 to Vernon Junction; southerly on the Vernon-McNary road (FR 224) to the Fort Apache Indian Reservation boundary; east and south along the reservation boundary to Black River; east and north along Black River to the east fork of Black River; north along the east fork to Three Forks; and continuing north and east on the Three Forks-Williams Valley-Alpine road (FR 249) to U.S. Hwy 180; east on U.S. Hwy 180 to the New Mexico state line; north along the state line to U.S. Hwy 60.

Unit 2A -- Beginning at St. Johns on U.S. Hwy 666 (AZ Hwy 61); north on U.S. Hwy 666 (AZ Hwy 61) to the Navajo Indian Reservation boundary; westerly along the reservation boundary to AZ Hwy 77; south on AZ Hwy 77 to Exit 292 on I-40; west on the westbound lane of I-40 to Exit 286; south on AZ Hwy 77 to U.S. Hwy 180; southeast on U.S. Hwy 180 to AZ Hwy 180A; south on AZ Hwy 180A to AZ Hwy 61; east on AZ Hwy 61 to U.S. Hwy 180 (AZ Hwy 61); east to U.S. Hwy 666 at St. Johns.

Unit 2B -- Beginning at Springerville; east on U.S. Hwy 60 to the New Mexico state line; north along the state line to the Navajo Indian Reservation boundary; westerly along the reservation boundary to U.S. Hwy 666 (AZ Hwy 61); south on U.S. Hwy 666 (U.S. Hwy 180, AZ Hwy 81) to Springerville.

Unit 2C -- Beginning at St. Johns on U.S. Hwy 666 (AZ Hwy 61); west on U.S. Hwy 180 (AZ Hwy 61) to Concho; southwest on AZ Hwy 61 to U.S. Hwy 60; east on U.S. Hwy 60 to U.S. Hwy 666 (U.S. Hwy 180, AZ Hwy 81); north on U.S. Hwy 666 (U.S. Hwy 180, AZ Hwy 81) to St. Johns.

Unit 3A -- Beginning at the junction of U.S. Hwy 180 and AZ Hwy 77; south on AZ Hwy 77 to AZ Hwy 377; southwesterly on AZ Hwy 377 to AZ Hwy 277; easterly on AZ Hwy 277 to Snowflake; easterly on the Snowflake-Concho road to U.S. Hwy 180A; north on U.S. Hwy 180A to U.S. Hwy 180; northwesterly on U.S. Hwy 180 to AZ Hwy 77.

Unit 3B -- Beginning at Snowflake; southerly along AZ Hwy 77 to U.S. Hwy 60; southwesterly along U.S. Hwy 60 to the Fort Apache Indian Reservation boundary; easterly along the reservation boundary to the Vernon-McNary road (FR 224); northerly along this road to U.S. Hwy 60; west on U.S. Hwy 60 to AZ Hwy 61; northeasterly on AZ Hwy 61 to AZ Hwy 180A; northerly on AZ Hwy 180A to Concho-Snowflake road; westerly on the Concho- Snowflake road to Snowflake.

Unit 3C -- Beginning at Snowflake; westerly on AZ Hwy 277 to AZ Hwy 260; westerly on AZ Hwy 260 to the Sitgreaves National Forest boundary with the Tonto National Forest; easterly along the Apache-Sitgreaves National Forest boundary to U.S. Hwy 60 (AZ Hwy 77); northeasterly on U.S. Hwy 60 (AZ Hwy 77) to Showlow; northerly along AZ Hwy 77 to Snowflake.

Unit 4A -- Beginning on the boundary of the Apache-Sitgreaves National Forest with the Coconino National Forest at the Mogollon Rim; north along this boundary (Leonard Canyon) to East Clear Creek; northerly along East Clear Creek to the Little Colorado River; easterly along the Little Colorado River to Chevelon Creek; southerly along Chevelon Creek to Woods Canyon; westerly along Woods Canyon to Woods Canyon Lake road; southeasterly along the Woods Canyon Lake road to the Mogollon Rim; westerly along the Mogollon Rim to the boundary of the Apache-Sitgreaves National Forest with the Coconino National Forest.

Unit 4B -- Beginning at AZ Hwy 260 and the Sitgreaves National Forest boundary with the Tonto National Forest; northeasterly on AZ Hwy 260 to AZ Hwy 277; northeasterly on AZ Hwy 277 to Hwy 377; northeasterly on AZ Hwy 377 to AZ Hwy 77; northeasterly on AZ Hwy 77 to I-40 Exit 286; northeasterly along the westbound lane of

I-40 to Exit 292; north on AZ Hwy 77 to the Navajo Indian Reservation boundary; west along the reservation boundary to the Little Colorado River; southerly along the Little Colorado River to Chevelon Creek; southerly along Chevelon Creek to Woods Canyon; westerly along Woods Canyon to Woods Canyon Lake road; southerly along the Woods Canyon Lake road to the Mogollon Rim; easterly along the Mogollon Rim to AZ Hwy 260.

Unit 5A -- Beginning at the junction of the Sitgreaves National Forest boundary with the Coconino National Forest boundary at the Mogollon Rim; northerly along this boundary (Leonard Canyon) to East Clear Creek; northeasterly along East Clear Creek to the Little Colorado River; northerly along the Little Colorado River to the Navajo Indian Reservation boundary; west along the reservation boundary to I-40; southeasterly on I-40 to the Meteor Crater road (Exit 233); southerly on the Meteor Crater-Chavez Pass-Jack's Canyon road (FR 69) to AZ Hwy 87; southwesterly along AZ Hwy 87 to the Coconino-Tonto National Forest boundary; easterly along the Coconino-Tonto National Forest boundary (Mogollon Rim) to the Sitgreaves National Forest boundary with the Coconino National Forest.

Unit 5B -- Beginning at the junction of U.S. Hwy 89A and Lake Mary-Clint's Well road (FH3); southeasterly on FH3 to AZ Hwy 87; northeasterly on AZ Hwy 87 to FR 69; westerly and northerly on FR 69 to I-40 (Exit 233); west on I-40 to U.S. Hwy 89A; south on U.S. Hwy 89A to FH3.

Unit 6A -- Beginning at the junction of U.S. Hwy 89A and Lake Mary-Clint's Well road (FH3); southwesterly on U.S. Hwy 89A to the Verde River; southeasterly along the Verde River to Childs; easterly on the Childs-Strawberry road to the Tonto-Coconino National Forest boundary; easterly along this boundary to AZ Hwy 87; northeasterly on AZ Hwy 87 to Lake Mary-Clint's Well road (FH3); northwesterly on FH3 to U.S. 89A.

Unit 6B -- Beginning at U.S. 89A at I-40 (in Flagstaff); westerly on I-40 to a point directly north of the west boundary of the Navajo Army Depot; south along this boundary to Volunteer Canyon; southwest along Volunteer Canyon and Sycamore Creek to the Verde River; southerly along the Verde to U.S Hwy 89A; northerly on AZ Hwy 89A to I-40.

Unit 7 -- Beginning at the junction of AZ Hwy 64 and I-40 (in Williams) ; easterly on I-40 to the southwest corner of the Navajo Indian Reservation boundary; northerly and westerly along the reservation boundary to the Four Corners Gas Line; southwesterly along the Four Corners Gas Line to U.S. Hwy 180; west on U.S. Hwy 180 to AZ Hwy 64; south on AZ Hwy 64 to I-40.

Unit 8 -- Beginning at the junction of I-40 and U.S. Hwy 89 (in Ash Fork, Exit 146); south on U.S. Hwy 89 to the Verde River; easterly along the Verde River to Sycamore Creek; northerly along Sycamore Creek to Volunteer Canyon; northeasterly along Volunteer Canyon to the west boundary of the Navajo Army Depot; north along the boundary to a point directly north of I-40; west on I-40 to U.S. Hwy 89.

Unit 9 - Beginning at the junction of Havasu Creek and the Colorado River; easterly along the Colorado River to Shinumo Wash; southeasterly along Shinumo Wash to the Navajo Indian Reservation boundary; southerly along the reservation boundary to the Four Corners Gas Line; southwesterly along the Four Corners Gas Line to U.S. Hwy 180; westerly on the Flagstaff-Valle-Cataract Creek road to Cataract Creek at Island Tank; northwesterly along Cataract Creek to Havasu Creek; northwesterly along Havasu Creek to the Colorado River.

Unit 10 - Beginning at the junction of AZ Hwy 64 and I-40; westerly on I-40 to Crookton Road (AZ Hwy 66, Exit 139); westerly on AZ Hwy 66 to the Hualapai Indian Reservation boundary; northeasterly along the reservation boundary to the Colorado River; easterly along the Colorado River to Havasu Creek in Cataract Canyon; southeasterly along Havasu Creek and Cataract Creek in Cataract Canyon to Island Tank; easterly on the Island Tank-Valle road to AZ Hwy 64; south on AZ Hwy 64 to I-40.

Unit 11 -- All of the Navajo and Hopi Indian Reservations.

Unit 12A -- Beginning at the confluence of the Colorado River and South Canyon; southerly and westerly along the Colorado River to Kanab Creek; northerly along Kanab Creek to Snake Gulch; northerly, easterly and southerly around the Kaibab National Forest boundary to South Canyon; northeasterly along South Canyon to the Colorado River.

Unit 12B -- Beginning at Shinumo Wash and the Navajo Indian Reservation boundary; northeasterly on the reservation boundary to the Arizona-Utah state line; westerly along the state line to Kanab Creek; southerly along Kanab Creek to the Kaibab National Forest boundary; northerly, easterly, and southerly along this boundary to South Canyon; down South Canyon to the Colorado River; northerly along the Colorado River to Shinumo Wash; southeasterly along Shinumo Wash to the Navajo Indian Reservation boundary.

Unit 13A -- Beginning on the western edge of the Hurricane Rim at the Utah state line; southerly along the western edge of the Hurricane Rim to the Mt. Trumbull road; westerly along the Mt. Trumbull road to the town of Mt. Trumbull (Bundyville); southerly along Main Street from the town Mt. Trumbull (Bundyville) to Whitmore Canyon; southeasterly along the bottom of Whitmore Canyon to the Colorado River; easterly along the Colorado River to Kanab Creek; northerly along Kanab Creek to the Utah state line; west along the Utah state line to the western edge of the Hurricane Rim.

Unit 13B -- Beginning on the western edge of the Hurricane Rim at the Utah state line; southerly along the western edge of the Hurricane Rim to the Mt. Trumbull road; west along the Mt. Trumbull road to the town of Mt. Trumbull (Bundyville); south along Main Street from the town of Mt. Trumbull (Bundyville) to Whitmore Canyon, and southeast along the bottom of Whitmore Canyon to the Colorado River; westerly along the Colorado River to the Nevada state line; north along the Nevada state line to the Utah state line; east along the Utah state line to the western edge of the Hurricane Rim.

Unit 14 -- All of the Hualapai Indian Reservation.

Unit 15A -- Beginning at Pearce Ferry on the Colorado River; southerly on the Pearce Ferry road to Antares road; southeasterly on Antares road to AZ Hwy 66; easterly on AZ Hwy 66 to the Hualapai Indian Reservation; west and

north along the west boundary of the reservation to the Colorado River; westerly along the Colorado River to Pearce Ferry.

Unit 15B -- Beginning at Kingman on I-40 (Exit 48); northwesterly on U.S. Hwy 93 to Hoover Dam; north and east along the Colorado River to Pearce Ferry; southerly on the Pearce Ferry road to Antares road; southeasterly on Antares road to AZ Hwy 66; easterly on AZ Hwy 66 to Hackberry; southerly on the Hackberry road to its junction with U.S. Hwy 93; north and west on U.S. Hwy 93 and I-40 (Exit 71) to Kingman.

Unit 15C -- Beginning at Hoover Dam; southerly along the Colorado River to AZ Hwy 68 and Davis Dam; easterly on AZ Hwy 68 to U.S. Hwy 93; northwesterly on U.S. Hwy 93 to Hoover Dam.

Unit 15D -- Beginning at AZ Hwy 68 and Davis Dam; southerly along the Colorado River to I-40; east and north on I-40 to Kingman (Exit 48); northwest on U.S. Hwy 93 to AZ Hwy 68; west on AZ Hwy 68 to Davis Dam.

Unit 16A -- Beginning at Kingman Exit 48 on I-40; south and west on I-40 to AZ Hwy 95 (Exit 9); southerly on AZ Hwy 95 to the Bill Williams River; easterly along the Bill Williams and Santa Maria rivers to U.S. Hwy 93; north and west on U.S. Hwy 93 and I-40 to Kingman (Exit 48).

Unit 16B -- Beginning at I-40 on the Colorado River; southerly along the Arizona-California state line to the Bill Williams River; east along the Bill Williams River to AZ Hwy 95; north on AZ Hwy 95 to I-40 (Exit 9); west on I-40 to the Colorado River.

Unit 17A -- Beginning at the junction of the Seligman-Prescott road (FR 6) and the Camp Wood road (FR 21); westerly on the Camp Wood road to the west boundary of the Prescott National Forest; north along this boundary to the Baca Grant; east, north and west around the grant to the west boundary of the Prescott National Forest; north and east along this boundary to the Seligman-Prescott road; southerly on this road to the Camp Wood road.

Unit 17B -- Beginning in Prescott; at the junction of Iron Springs road and Williamson Valley road westerly on the Prescott-Skull Valley-Hillside-Bagdad road to Bagdad; northeast on the Bagdad-Camp Wood road (FR 21) to the Seligman-Prescott road (FR 6, Williamson Valley Road); south on this road to the Iron Springs road.

Unit 18A -- Beginning at Seligman; westerly on AZ Hwy 66 to the Hualapai Indian Reservation; southwest and west along the reservation boundary to AZ Hwy 66; southwest on AZ Hwy 66 to the Hackberry road; south on the Hackberry road to U.S. Hwy 93; south on U.S. Hwy 93 to Cane Springs Wash; easterly along Cane Springs Wash to the Big Sandy River; northerly along the Big Sandy River to Trout Creek; northeast along Trout Creek to the Davis Dam-Prescott power line; southeasterly along the power line to the west boundary of the Prescott National Forest; north and east along the forest boundary to the Seligman-Prescott road (FR 6); northerly on this road to Seligman and AZ Hwy 66.

Unit 18B -- Beginning at Bagdad; southeast on AZ Hwy 96 to the Santa Maria River; southwest along the Santa Maria River to U.S. Hwy 93; northerly on U.S. Hwy 93 to Cane Springs Wash; easterly along Cane Springs Wash to the Big Sandy River; northerly along the Big Sandy River to Trout Creek; northeasterly along Trout Creek to the Davis Dam-Prescott power line; southeasterly along the power line to the west boundary of the Prescott National Forest; south along the forest boundary to the Baca Grant; east, south and west along the joint Baca Grant Prescott Forest Boundary. Continuing south along the west boundary of the Prescott National Forest; to the Camp Wood-Bagdad road; southwesterly on this road to Bagdad.

Unit 19A -- Beginning at AZ Hwy 69 and U.S. Hwy 89 (in Prescott); northerly on U.S. Hwy 89 to the Verde River; easterly along the Verde River to I-17; southwesterly on the southbound lane of I-17 to AZ Hwy 69; northwesterly on AZ Hwy 69 to U.S. Hwy 89.

Unit 19B -- Beginning at the intersection of U.S. Hwy 89 and AZ Hwy 69 northwesterly through Prescott to the junction of Williamson Valley Road and Iron Springs road; northerly on the Williamson Valley-Prescott-Seligman road) FR 6, Williamson Valley Road) to AZ Hwy 66 at Seligman; east on Crookton Road (AZ Hwy 66) to I-40 (Exit 139); east on I-40 to U.S. Hwy 89; south on U.S. Hwy 89 to the junction with AZ Hwy 69.

Unit 20A -- Beginning at the intersection of U.S. Hwy 89 and AZ Hwy 69; northwest to Iron Springs road, west and south on the Iron Springs-Skull Valley-Kirkland Junction road to U.S. Hwy 89; continue south and easterly on the Kirkland Junction-Wagoner-Crown King-Cordes road to Cordes, from Cordes southeast to I-17 (Exit 259); north on the southbound lane of I-17 to AZ Hwy 69; northwest on AZ Hwy 69 to junction of U.S. Hwy 89 at Prescott.

Unit 20B -- Beginning at the Hassayampa River and U.S. Hwy 93 (in Wickenburg); northeasterly along the Hassayampa River to the Kirkland Junction-Wagoner-Crown King-Cordes road (at Walnut Grove); southerly and northeasterly along this road to I-17 (Exit 259); south on the southbound lane of I-17 to the Carefree Hwy (Exit 223); west on the Carefree Hwy to the Lake Pleasant road; southerly on the Lake Pleasant road to the Central Arizona Project (CAP) Canal; westerly on the CAP Canal to the Beardsley Canal; southerly along Beardsley Canal to U.S. Hwy 93; northwesterly on U.S. Hwy 93 to the Hassayampa River.

Unit 20C -- Beginning at U.S. Hwy 93 and the Santa Maria River; northeasterly along the Santa Maria River to AZ Hwy 96; easterly on AZ Hwy 96 to Kirkland Junction; southeasterly along the Kirkland Junction-Wagoner-Crown King-Cordes road to the Hassayampa River (at Walnut Grove); southwesterly along the Hassayampa River to U. S. Hwy 93; northwesterly on U.S. Hwy 93 to the Santa Maria River.

Unit 21 -- Beginning on I-17 at the Verde River; southerly on the southbound lane of I-17 to the Carefree Hwy (Exit 223); east on the Carefree Hwy to Cave Creek Road; northeasterly on Cave Creek Road to the Tonto National Forest boundary; southeasterly along this boundary to the Verde River; north along the Verde River to I-17.

Unit 22 -- Beginning at the junction of the Salt and Verde Rivers; north along the Verde River to Childs; easterly on the Childs-Strawberry road to the Tonto-Coconino National Forest boundary; easterly along this boundary to Tonto Creek; southerly along Tonto Creek to the Salt River; westerly along the Salt River to the Verde River.

Unit 23 -- Beginning at the confluence of Tonto Creek and the Salt River; northerly along Tonto Creek to the Tonto-Sitgreaves National Forest boundary; east along this boundary to the Fort Apache Indian Reservation boundary; southerly along the reservation boundary to the Salt River; westerly along the Salt River to Tonto Creek.

Unit 24A -- Beginning on AZ Hwy 177 in Superior; southeasterly on AZ Hwy 177 to the Gila River; northeasterly along the Gila River to the San Carlos Indian Reservation boundary; easterly, westerly and northerly along the reservation boundary to the Salt River; southwesterly along the Salt River to AZ Hwy 288; southerly on AZ Hwys 288 and 88 to U.S. Hwy 60; southwesterly on U.S. Hwy 60 to AZ Hwy 177.

Unit 24B -- Beginning on U.S. Hwy 60 in Superior; northeasterly on U.S. Hwy 60 to AZ Hwy 88; northerly on AZ Hwys 88 and 288 to the Salt River; westerly along the Salt River to Bush Hwy at the Blue Point Bridge; westerly on Bush Hwy to the Usery Pass road (Ellsworth Road); southerly on the Usery Pass road to U.S. Hwy 60; easterly on U.S. Hwy 60 to Superior.

Unit 25 -- All of the Fort Apache Indian Reservation.

Unit 26 -- All of the San Carlos Indian Reservation.

Unit 27 -- Beginning at the New Mexico state line and AZ Hwy 78; southwest on AZ Hwy 78 to U.S. Hwy 191; north on U.S. Hwy 191 to the San Carlos-Morenci-Clifton road; west on the San Carlos-Morenci-Clifton road to Eagle Creek; north along Eagle Creek to the San Carlos Apache Indian Reservation boundary; north along the San Carlos Apache Indian Reservation boundary to Black River; northeast along Black River to the East Fork of Black River; northeast along the East Fork of Black River to the Three Forks-Williams Valley-Alpine road (FR 249) easterly along the Three Forks-Williams Valley-Alpine road to U.S. Hwy 180; southeast on U.S. Hwy 180 to the New Mexico state line; south along the New Mexico state line to AZ Hwy 78.

Unit 28 -- Beginning at I-10 and the New Mexico state line; north along the state line to AZ Hwy 78; southwest on AZ Hwy 78 to U.S. Hwy 666; northwest on U.S. Hwy 666 to Clifton; westerly on the Clifton-Morenci-San Carlos road to Eagle Creek; northerly along Eagle Creek to the San Carlos Indian Reservation boundary; southerly and west along the reservation boundary to U.S. Hwy 70; southeast on U.S. Hwy 70 to U.S. Hwy 666; south on U.S. Hwy 666 to I-10 Exit 352; easterly on I-10 to the New Mexico state line.

Unit 29 -- Beginning on I-10 at the New Mexico state line; westerly on I-10 to the Bowie-Apache Pass road; southerly on the Bowie-Apache Pass road to AZ Hwy 186; southeast on AZ Hwy 186 to AZ Hwy 181; south on AZ Hwy 181 to the Rucker-Turkey Creek cutoff road; southerly on the cutoff road to Rucker Canyon road; easterly on this road to the Tex Canyon road; southerly on this road to U.S. Hwy 80; northeast on U.S. Hwy 80 to the New Mexico state line; north along the state line to I-10.

Unit 30A -- Beginning at the junction of the New Mexico state line and U.S. Hwy 80; south along the state line to the U.S.-Mexico border; west along the border to U.S. Hwy 666; northerly on U.S. Hwy 666 to I-10 Exit 331; northeasterly on I-10 to the Bowie-Apache Pass road; southerly on the Bowie-Apache Pass road to AZ Hwy 186; southeasterly on AZ Hwy 186 to AZ Hwy 181; south on AZ Hwy 181 to the Rucker-Turkey Creek cutoff road; southerly on the cutoff road to Rucker Canyon road; easterly on this road to the Tex Canyon road; southerly on this road to U.S. Hwy 80; northeast on U.S. Hwy 80 to the New Mexico state line.

Unit 30B -- Beginning at U.S. Hwy 666 and the U.S.-Mexico border; west along the border to the San Pedro River; north along the San Pedro River to I-10 Exit 331; northeasterly on I-10 to U.S. Hwy 666; southerly on U.S. Hwy 666 to the U.S.-Mexico border.

Unit 31 -- Beginning at Willcox Exit 340 on I-10; north on the Willcox-Bonita-Klondyke road to the junction with Aravaipa Creek; west along Aravaipa Creek to AZ Hwy 77; northerly along AZ Hwy 77 to the Gila River; northeast along the Gila River to the San Carlos Indian Reservation boundary; south then east and north along the reservation boundary to U.S. Hwy 70; southeast on U.S. Hwy 70 to U.S. Hwy 666; south on U.S. Hwy 666 to the 352 exit on I-10; southwest on I-10 to Exit 340.

Unit 32 -- Beginning at Willcox Exit 340 on I-10; southwest on I-10 to the San Pedro River; northerly along the San Pedro River to U.S. Hwy 77; northerly along U.S. Hwy 77 to Aravaipa Creek; easterly along Aravaipa Creek to the Klondyke-Bonita-Willcox road; southerly on this road to Willcox Exit 340 on I-10.

Unit 33 -- Beginning at Tangerine road and AZ Hwy 77; north and northeast on AZ Hwy 77 to the San Pedro River; southeast along the San Pedro River to I-10 at Benson; west on I-10 to Marsh Station road (Exit 289); northwest on the Marsh Station road to the Agua Verde road; north on the Agua Verde road to its terminus then north 1/2 mile to the Coronado National Forest boundary; north and west along the National Forest boundary; then west, north, and east along the Saguaro National Park boundary; continuing north and west along the Coronado National Forest boundary to the southern boundary of Catalina State Park; west along the southern boundary of Catalina State Park to AZ Hwy 77; north on AZ Hwy 77 to Tangerine road.

Unit 34A -- Beginning at I-19 and Grand Avenue in Nogales; northeast on Grand Avenue (U.S. Hwy. 89) to AZ Hwy 82; northeast on AZ Hwy 82 to AZ Hwy 83; northerly on AZ Hwy 83 to the Sahuarita road; west along the Sahuarita road alignment to I-19 Exit 75; south on I-19 to Grand Avenue (U.S. Hwy 89).

Unit 34B -- Beginning at AZ Hwy 83 and I-10 Exit 281; easterly on I-10 to the San Pedro River; south along the San Pedro River to AZ Hwy 82; westerly on AZ Hwy 82 to AZ Hwy 83; northerly on AZ Hwy 83 to I-10 Exit 281.

Unit 35A -- Beginning on the U.S.-Mexico border at the San Pedro River; west along the border to the Lochiel-Canelo Pass-Elgin road; north on this road to AZ Hwy 82; easterly on AZ Hwy 82 to the San Pedro River; south along the San Pedro River to the U.S.-Mexico border.

Unit 35B -- Beginning at Grand Avenue (U.S. Hwy 89) at the U.S.-Mexico border in Nogales; east along the U.S.-Mexico border to the Lochiel-Canelo Pass-Elgin road; north on this road to AZ Hwy 82; southwest on AZ Hwy 82 to Grand Avenue; southwest on Grand Avenue to the U.S.-Mexico border.

Unit 36A -- Beginning at the junction of Sandario Road and AZ Hwy 86; southwesterly on AZ Hwy 86 to AZ Hwy 286; southerly on AZ Hwy 286 to the Arivaca road; easterly on the Arivaca road to I-19; north on I-19 to the southern boundary of the San Xavier Indian Reservation boundary; westerly and northerly along the reservation boundary to the Sandario road alignment; north on Sandario road and AZ Hwy 86.

Unit 36B -- Beginning at I-19 and Grand Avenue (U.S. Hwy 89) in Nogales; southwest on Grand Avenue to the U.S.-Mexico border; west along the U.S.-Mexico border to AZ Hwy 286; north on AZ Hwy 286 to the Arivaca road; east on the Arivaca road to I-19; south on I-19 to Grand Avenue (U.S. Hwy 89).

Unit 36C -- Beginning at the junction of AZ Hwy 86 and AZ Hwy 286; southerly on AZ Hwy 286 to the U.S.-Mexico border; westerly along the border to the east boundary of the Tohono O'odham (Papago) Indian Reservation; northerly along the reservation boundary to AZ Hwy 86; easterly on AZ Hwy 86 to AZ Hwy 286.

Unit 37A -- Beginning at the junction of I-10 and Tangerine road (Exit 240); southeast on I-10 to Avra Valley road (Exit 242); west on Avra Valley road to Sandario road; south on Sandario road to AZ Hwy 86; southwest on AZ Hwy 86 to the Tohono O'odham (Papago) Indian Reservation boundary; north, east, and west along the reservation boundary to Battaglia road; east on Battaglia road to I-10 (Exit 203); southeast on I-10 to AZ Hwy 87 (Exit 211); north on AZ Hwy 87 to AZ Hwy 287; east on AZ Hwy 287 to AZ Hwy 79 at Florence; southeast on AZ Hwy 79 to its junction with AZ Hwy 77; south on AZ Hwy 77 to Tangerine road; west on Tangerine road to I-10.

Unit 37B -- Beginning at the junction of AZ Hwy 79 and AZ Hwy 77; northwest on AZ Hwy 79 to U.S. Hwy 60; east on U.S. Hwy 60 to AZ Hwy 177; southeast on AZ Hwy 177 to AZ Hwy 77; southeast and southwest on AZ Hwy 77 to AZ Hwy 79.

Unit 37M -- Beginning at the junction of I-10 and Tangerine road (Exit 240); southeast on I-10 to Avra Valley road (Exit 242); west on Avra Valley road to Sandario road; south on Sandario road to the San Xavier Indian Reservation boundary; south and east along the reservation boundary to I-19; south on I-19 to Sahuarita road (Exit 75); east on Sahuarita road to AZ Hwy 83; north on AZ Hwy 83 to I-10 (Exit 281); east on I-10 to Marsh Station road (Exit 289); northwest on Marsh Station road to the Agua Verde road; north on the Agua Verde road to its terminus, then north 1/2 mile to the Coronado National Forest boundary; north and west along the National Forest boundary, then west, north, and east along the Saguaro National Park boundary; continuing north and west along the Coronado National Forest boundary to the southern boundary of Catalina State Park; west along the southern boundary of Catalina State Park to AZ Hwy 77; north on AZ Hwy 77 to Tangerine road; west on Tangerine Road to I-10.

Unit 38 -- All of the Tohono O'odham (Papago) Indian Reservation.

Unit 39 -- Beginning at AZ Hwy 85 and the Gila River; east along the Gila River to the western boundary of the Gila River Indian Reservation; southeasterly along the reservation boundary to Maricopa road; south on this road to AZ Hwy 84; east on AZ Hwy 84 to Stanfield; south on the Stanfield-Cocklebur road to I-8; westerly on I-8 to Exit 87; north on the Sentinel-Sundad road to the Cotton Center-Palo Verde road; northeasterly on the Cotton Center-Palo Verde road to AZ Hwy 85; southerly on AZ Hwy 85 to the Gila River.

Unit 39M -- Beginning at I-10 and the Salt River; westerly along the Salt River to the Gila River; westerly along the Gila River to the western boundary of the Gila Indian Reservation; southeasterly along the reservation boundary to Maricopa road; south on Maricopa road to AZ Hwy 84; east on AZ Hwy 84 to Stanfield; south on the Stanfield-Cocklebur road to the Tohono O'odham (Papago) Indian Reservation; easterly along the reservation boundary to Battaglia road; east on this road to I-10 (Exit 203); southeasterly on I-10 to AZ Hwy 87 (Exit 211); north on AZ Hwy 87 to AZ Hwy 287 north of Coolidge; east on AZ Hwy 287 to AZ Hwy 79; north on AZ Hwy 79 to U.S. Hwy 60; westerly on U.S. Hwy 60 to I-10; westerly on I-10 to the Salt River.

Unit 40A -- Beginning at Ajo; southeasterly on AZ Hwy 85 to Why; southeasterly on AZ Hwy 86 to the Tohono O'odham (Papago) Indian Reservation; northerly and easterly along the reservation boundary to the Cocklebur-Stanfield road; north on this road to I-8; westerly on I-8 to AZ Hwy 85; southerly on AZ Hwy 85 to Ajo.

Unit 40B -- Beginning at Gila Bend; westerly on I-8 to the Colorado River; southerly along the Colorado River to the Mexican border at San Luis; southeasterly along the border to the Cabeza Prieta National Wildlife Refuge; northerly, easterly and southerly around the refuge boundary to the Mexican border; southeast along the border to the Tohono O'odham (Papago) Indian Reservation; northerly along the reservation boundary to AZ Hwy 86; northwesterly on AZ Hwy 86 to AZ Hwy 85; north on AZ Hwy 85 to Gila Bend.

Unit 41 -- Beginning at I-8 and AZ Hwy 95 (in Yuma); easterly on I-8 to exit 87; northerly on the Sentinel-Sundad road to the Cotton Center-Palo Verde road; northerly and easterly on the Cotton Center-Palo Verde road to AZ Hwy 85; northerly on AZ Hwy 85 to Oglesby road; north on Oglesby road to I-10; westerly on I-10 to Exit 45; southerly on Vicksburg-Kofa National Wildlife Refuge road to the Refuge boundary; easterly, southerly, westerly, and northerly along the boundary to the Castle Dome road; southwesterly on the Castle Dome road to U.S. Hwy 95; southerly on U.S. Hwy 95 to I-8.

Unit 42 -- Beginning at the junction of the Beardsley Canal and U.S. Hwy 93 (U.S. 89, U.S. 60); northwesterly on U.S. Hwy 93 to AZ Hwy 71; southwesterly on AZ Hwy 71 to U.S. Hwy 60; westerly on U.S. Hwy 60 to Aguila; south on the Eagle Eye road to the Salome-Hassayampa road; southeasterly on this road to I-10 (Exit 81); easterly on I-10 to Jackrabbit Trail (Exit 121); north along this road to the Indian School road; east along Indian School road to the Beardsley Canal; northeasterly along the Beardsley Canal to U.S. Hwy 93.

Unit 42M -- Beginning at the junction of I-17 and the Carefree Hwy (Exit 223); west on the Carefree Hwy to the Lake Pleasant Road; southerly on the Lake Pleasant Road to the Central Arizona Project (CAP) Canal; westerly on the CAP Canal to the Beardsley Canal; southwesterly along the Beardsley Canal to Indian School road;

west on Indian School road to Jackrabbit Trail; south on Jackrabbit Trail to I-10 (Exit 121); west on I-10 to Oglesby Road (Exit 112); south on Oglesby road to AZ Hwy 85; south on AZ Hwy 85 to the Gila River; east along the Gila River to the Salt River; east along the Salt River to I-10; easterly on I-10 to U.S. Hwy 60; east on U.S. Hwy 60 to the Usery Pass road (Ellsworth Road); north on the Usery Pass road to Bush Hwy; easterly on Bush Hwy to the Salt River at the Blue Point Bridge; westerly along the Salt River to the Verde River; northerly along the Verde River to the Tonto National Forest boundary; northwesterly along this boundary to Cave Creek Road; southwesterly on Cave Creek Road to the Carefree Hwy; west on the Carefree Hwy to I-17 (Exit 223).

Unit 43A -- Beginning at AZ Hwy 95 and the Bill Williams River; west along the Bill Williams River to the Arizona-California state line; southerly to the south end of Cibola Lake; northerly and easterly on the Cibola Lake road to U.S. Hwy 95; south on U.S. Hwy 95 to the Stone Cabin-King Valley road; east along the Stone Cabin-King Valley road to the west boundary of the Kofa National Wildlife Refuge; northerly along the refuge boundary to the Crystal Hill road; northwesterly on this road to U.S. Hwy 95; northerly on U.S. Hwy 95 to the Bill Williams River.

Unit 43B -- Beginning at the south end of Cibola Lake; southerly along the Arizona-California state line to I-8; southeasterly on I-8 to U.S. Hwy 95; easterly and northerly on U.S. Hwy 95 to the Castle Dome road; northeast on this road to the Kofa National Wildlife Refuge boundary; north along the refuge boundary to the Stone Cabin-King Valley road; west along this road to U.S. Hwy 95; north on U.S. Hwy 95 to the Cibola Lake road; west and south on this road to the south end of Cibola Lake.

Unit 44A -- Beginning at U.S. Hwy 95 and the Bill Williams River; south along U.S. Hwy 95 to AZ Hwy 72; southeasterly on AZ Hwy 72 to Vicksburg; south on the Vicksburg-Kofa National Wildlife Refuge road to I-10; easterly on I-10 to the Salome-Hassayampa road (Exit 81); northwesterly on this road to Eagle Eye road; northeasterly on Eagle Eye road to Aguila; east on U.S. Hwy 60 to AZ Hwy 71; northeasterly on AZ Hwy 71 to U.S. Hwy 93; northwesterly on U.S. Hwy 93 to the Santa Maria River; westerly along the Santa Maria and Bill Williams rivers to U.S. Hwy 95.

Unit 44B -- Beginning at Quartzite; south on U.S. Hwy 95 to the Crystal Hill road; east on this road to the Kofa National Wildlife Refuge; north and east along the refuge boundary to the Vicksburg-Kofa National Wildlife Refuge road; north on this road to AZ Hwy 72; northwest on AZ Hwy 72 to U.S. Hwy 95; south on U.S. Hwy 95 to Quartzite.

Unit 45A -- Beginning at the junction of the Stone Cabin-King Valley road and Kofa National Wildlife Refuge boundary; east on the Stone Cabin-King Valley road to O-O Junction; north from O-O Junction on the Kofa Mine road to the Evening Star Mine; north on a line over Polaris Mountain to Midwell; north on the Midwell-Alamo Spring-Kofa Cabin road to the El Paso Natural Gas Pipeline Road; north on a line from the junction to the north boundary of the Kofa National Wildlife Refuge; west and south on the boundary line to Stone Cabin-King Valley Road.

Unit 45B -- Beginning at O-O Junction; north from O-O Junction on the Kofa Mine road to the Evening Star Mine; north on a line over Polaris Mountain to Midwell; north on the Midwell-Alamo Spring-Kofa Cabin road to the El Paso Natural Gas Pipeline Road; north on a line from the junction to the north Kofa National Wildlife Refuge boundary; east to the east refuge boundary; south and west along the Kofa National Wildlife Refuge boundary to the Stone Cabin-King Valley road; north and west on this road to O-O Junction.

Unit 45C -- Beginning at the junction of the Stone Cabin-King Valley road and Kofa National Wildlife Refuge; south, east, and north along the refuge boundary to the Stone Cabin-King Valley road; north and west on this road to the junction of the Stone Cabin-King Valley road and Kofa National Wildlife Refuge boundary.

Unit 46A -- That portion of the Cabeza Prieta National Wildlife Refuge east of the Yuma-Pima County line.

Unit 46B -- That portion of the Cabeza Prieta National Wildlife Refuge west of the Yuma-Pima County line.

**D.** This rule is effective January 1, 1996.

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective March 5, 1976 (Supp. 76-2). Amended effective May 17, 1977 (Supp. 77-3). Amended effective September 7, 1978 (Supp. 78-5). Amended effective June 4, 1979 (Supp. 79-3). Former Section R12-4-10 renumbered as Section R12-4-108 without change effective August 13, 1981 (Supp. 81-4). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective February 4, 1993 (Supp. 93-1). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-109. Wildlife areas**

**A.** Wildlife areas shall be established to:
1. Provide protective measures for wildlife, habitat, or both; and
2. Allow for special management or research practices; and
3. Enhance wildlife and habitat conservation.

**B.** Wildlife areas shall be:
1. Lands owned or leased by the Commission and managed by the Department, or
2. Federally owned lands of unique wildlife habitat where cooperative agreements provide wildlife management and research implementation.

**C.** Wildlife area designation shall not be given to any private lands, or lands in which private parcels are located, solely for the purpose of protecting private property. Wildlife area designation on private property, or where private property is involved, shall be considered by the Commission only when the Commission and the owners arrive at a mutual agreement that shall not confine or restrict the Department in fulfilling management or research objectives, nor close the area to hunting, trapping, or fishing.

**D.** Land qualified for wildlife areas shall be:
1. Lands with unique topographic or vegetative characteristics that contribute to wildlife,
2. Lands where certain wildlife species are confined because of habitat demands,
3. Lands that can be physically managed and modified to attract wildlife, or

4. Lands that are identified as critical habitat for certain wildlife species during critical periods of their life cycles.

**E.** The Department may restrict public access to and public use of wildlife areas and the resources of wildlife areas for up to 90 days when necessary to protect property, ensure public safety, or to ensure maximum benefits to wildlife. Closures or restrictions exceeding 90 days shall require Commission approval.

**F.** Closures of all or any part of a wildlife area to public entry, and any restriction to public use of a wildlife area, shall be clearly posted at each entrance to the wildlife area. No person shall conduct an activity restricted by such posting.

**G.** When a wildlife area is posted against travel except on existing roads, no person shall drive a motor-operated vehicle over the countryside except by road.

**H.** Wildlife areas are described as follows:

1. Alamo Wildlife Area. The Alamo Wildlife Area shall be:
T10N, R12W,
Section 6, Lots 4, 5, 12, 13, and 14.
T10N, R13W,
Section 1, Lots 1, 2, 3, and 4, S 1/2 N 1/2, SW 1/4, and N 1/2 SE 1/4;
Sections 2 and 3;
Section 4, E 1/2 SW 1/4, and SE 1/4;
Section 9, NE 1/4, and E 1/2 NW 1/4;
Section 10, N 1/2;
Section 11, N 1/2;
Section 12, NW 1/4.
T11N, R12W
Section 4, Lots 2, 3, and 4, SW 1/4 NE 1/4, S 1/2 NW 1/4, SW 1/4, and W 1/2 SE 1/4;
Section 5, Lot 1, SE 1/4 NE 1/4, and E 1/2 SE 1/4;
Section 7, Lots 3 and 4, SE 1/4 NE 1/4, E 1/2 SW 1/4, and SE 1/4;
Section 8, NE 1/4, S 1/2 NW 1/4, and S 1/2;
Section 9;
Section 10, S 1/2 NW 1/4, and S 1/2;
Section 11, S 1/2 S 1/2;
Section 12, S 1/2 S 1/2;
Section 13, N 1/2, and N 1/2 S 1/2;
Section 14, N 1/2, N 1/2 S 1/2, and SE 1/4 SE 1/4;
Section 15, N 1/2, SW 1/4, N 1/2 SE 1/4, and SW 1/4 SE 1/4;
Sections 16, 17, 18, and 19;
Section 20, N 1/2, and SW 1/4;
Section 21, W 1/2 NE 1/4, and NW 1/4;
Section 23, E 1/2 NE 1/4;
Section 29, NW 1/4, and S 1/2;
Sections 30 and 31;
Section 32, W 1/2, and W 1/2 E 1/2.
T11N, R13W
Section 12, SE 1/4 SW 1/4, SW 1/4 SE 1/4, and E 1/2 SE 1/4;
Section 13;
Section 14, S 1/2 NE 1/4, SE 1/4 SW 1/4, and SE 1/4;
Section 22, S 1/2;
Section 23, E 1/2, E 1/2 NW 1/4, SW 1/4 NW 1/4, and SW 1/4;
Sections 24, 25, and 26;
Section 27, E 1/2, and E 1/2 W 1/2;
Section 34, E 1/2, E 1/2 NW 1/4, and SW 1/4;
Section 35;
Section 36.
T12N, R12W
Section 17, W 1/2 SW 1/4;
Section 18, Lots 2, 3, and 4, SW 1/4 NE 1/4; SE 1/4 NW 1/4, E 1/2 SW 1/4, and SE 1/4;
Section 19, Lot 1, NE 1/4 NW 1/4, E 1/2, and SE 1/4 SW 1/4;
Section 20, NW 1/4 NW 1/4, and SW 1/4 SW 1/4;
Section 28, SW 1/4 SW 1/4;
Section 29, W 1/2 NW 1/4, and S 1/2;
Section 30, E 1/2, E 1/2 NW 1/4, and NE 1/4 SW 1/4;
Section 31, NE 1/4 NE 1/4;
Section 32, N 1/2, N 1/2 SE 1/4, and SE 1/4 SE 1/4;
Section 33, W 1/2 E 1/2, and W 1/2.
T12N, R13W
Section 12, S 1/2 SW 1/4;
Section 13, NE 1/4, N 1/2 NW 1/4, SE 1/4 NW 1/4, and N 1/2 SE 1/4, all in G&SRB&M, Mohave and La Paz Counties, Arizona.

2. Allen Severson Memorial Wildlife Area: The Allen Severson Memorial Wildlife Area shall be that area including Pintail Lake and South Marsh lying within the fenced and posted portions of the SE 1/4 Section 32; and the S 1/2 SW 1/4 Section 33; T11N, R22E and the N 1/2 NW 1/4 Section 4, T10N, R22E and the posted portion of the SW 1/4 NW 1/4, and the NW 1/4 SW 1/4 Section 4, T10N, R22E, all in G&SRB&M, Navajo County, Arizona, consisting of approximately 300 acres.

3. Aravaipa Canyon Wildlife Area: The Aravaipa Canyon Wildlife Area shall be that area within the boundaries of the Aravaipa Canyon Primitive Area administered by the Bureau of Land Management, Graham and Pinal Counties, Arizona, consisting of approximately 4,044 acres.

4. Arlington Wildlife Area: The Arlington Wildlife Area shall be those portions of Section 9, 16 and 21 lying west on a line 100 feet west of the main channel of the Gila River (Ca. 1960), except the NW 1/4, Section 9 and the W 1/2 SW 1/4, Section 21, all in T2S, R5W, G&SRB&M, Maricopa, Arizona, consisting of approximately 1,320 acres.

5. Base and Meridian Wildlife Area: The Base and Meridian Wildlife Area shall be the area within the following described legal subdivisions; Township 1 North, Range 1 East, Section 31, Lots 3, 5, 6, 7, & 8, NE 1/4 SW 1/4; T1N, R1W, Section 36, S 1/2 N 1/2 SE 1/4; all in G&SRB&M, Maricopa County, Arizona, consisting of approximately 773 acres.

6. Becker Lake Wildlife Area: The Becker Lake Wildlife Area shall be that area including Becker Lake lying within the fenced and posted portions of the SE 1/4 SW 1/4 Section 19, SW 1/4 SW 1/4 Section 20, W 1/2 NW 1/4, and NW 1/4 SW 1/4 Section 29, the E 1/2 NE 1/4 and NE 1/4 SE 1/4 Section 30, T9N, R29E, G&SRB&M, Apache County, Arizona, consisting of approximately 325 acres.

7. Bog Hole Wildlife Area: Bog Hole Wildlife Area lying in Sections 29, 32 and 33, T22S, R17E shall be the fenced and posted area described as follows: Beginning at the southeast corner of Section 32, Township 22 South, Range 17 East, G&SRB&M, Santa Cruz County, Arizona; thence N21°42’20”W, 1394.86 feet to the true point of beginning; thence N9°15’26”W, 1014.82 feet; thence N14°30’58”W, 1088.82 feet; thence N36°12’57”W, 20.93 feet; thence N50°16’38”W, 1341.30 feet; thence N57°51’08”W, 1320.68 feet; thence N39°03’53”E, 1044.90 feet; thence N39°07’43”E, 1232.32 feet; thence S36°38’48”E, 1322.93 feet; thence S43°03’17”E, 1312.11 feet; thence S38°19’38”E, 1315.69 feet; thence

S13°11'59"W, 2083.31 feet; thence S69°42'45"E, 920.49 feet to the true point of beginning.

8. Chevelon Creek Wildlife Area: The Chevelon Creek Wildlife Area shall be that area lying in the NE 1/4 Section 26, and E 1/2 of Section 23, all in T18N, R17E, G&SRB&M, Navajo County, Arizona,, consisting of approximately 668 acres.
9. Clarence May and C.M.H. May Memorial Wildlife Area: Clarence May and C.M.H. May Memorial Wildlife Area shall be the SE 1/4 of Section 8 and N 1/2 of the NE 1/4 of Section 17, Township 17 South, Range 31 East, and the W 1/2 SE 1/4, S 1/2 NW 1/4, SW 1/4 of Section 9, T17S, R31E, G&SRB&M, Cochise County, Arizona, consisting of approximately 560 acres.
10. Cluff Ranch Wildlife Area: The Cluff Ranch Wildlife Area is that area within the fenced and posted portions of Sections 13, 14, 23, 24, and 26, T7S, R24E, G&SRB&M, Graham County, Arizona; consisting of approximately 788 acres.
11. Lamar Haines Memorial Wildlife Area: The Lamar Haines Memorial Wildlife Area is that area lying within the NW 1/4 Section 12, T22N, R6E, G&SRB&M, Coconino County, Arizona; consisting of approximately 160 acres.
12. House Rock Wildlife Area: House Rock Wildlife Area is described as follows: Beginning at the common one-quarter corner of Sections 17 and 20, T36N, R4E; thence east along the south section lines of Sections 17, 16, 15, 14, 13 T36N, R4E, and Section 18, T36N, R5E, to the intersection with the top of the southerly escarpment of Bedrock Canyon; thence meandering southeasterly along the top of said escarpment to the top of the northerly escarpment of Fence Canyon; thence meandering along the top of said north escarpment to its intersection with the top of the southerly escarpment of Fence Canyon; thence meandering northeasterly along the top of said southerly escarpment to its intersection with the top of the escarpment of the Colorado River; thence meandering southerly along top of said Colorado River escarpment to its intersection with Boundary Ridge in Section 29, T34N, R5E; thence meandering westerly along Boundary Ridge to its intersection with the top of the escarpment at the head of Saddle Canyon; thence northerly along the top of the westerly escarpment to its intersection with a line beginning approximately at the intersection of the Cockscomb and the east fork of South Canyon extending southeast to a point approximately midway between Buck Farm Canyon and Saddle Canyon; thence northwest to the bottom of the east fork of South Canyon in the SW 1/4 SW 1/4 of Section 16, T34N, R4E; thence meandering northerly along the west side of the Cockscomb to the bottom of North Canyon in the SE 1/4 of Section 12, T35N, R3E; thence meandering northeasterly along the bottom of North Canyon to a point where the slope of the land becomes nearly flat; thence northerly along the westerly edge of House Rock Valley to the point of beginning; all in G&SRB&M, Coconino County, Arizona.
13. Jacques Marsh: Jacques Marsh Wildlife Area is that area within the fenced and posted portions of the SE 1/4 SW 1/4, NE 1/4 SW 1/4, NE 1/4 SW 1/4 SW 1/4, NW 1/4 SW 1/4, N 1/2 NW 1/4 SE 1/4, SE 1/4 SW 1/4 NE 1/4, S 1/2 SE 1/4 NW 1/4, SE 1/4 SE 1/4 NW 1/4, Section 11; and N 1/2 NE 1/4 NW 1/4 Section 14; T9N, R22E, G&SRB&M, Navajo County, Arizona.
14. Luna Lake Wildlife Area: The Luna Lake Wildlife Area shall be the fenced, buoyed, and posted area lying north of U.S. Highway 180 in the N 1/2 Section 17, T5N, R31E, G&SRB&M, Apache County, Arizona.
15. Mittry Lake Wildlife Area: The Mittry Lake Wildlife Area shall be that area lying within the following described legal subdivisions:

    T6S, R21W

    Section 31: All of Lots 1, 2, 3, 4, E 1/2 W 1/2, and that portion of E 1/2 lying westerly of Gila Gravity Main Canal Right-of-Way.

    T7S, R21W

    Section 5: that portion of SW 1/4 SW 1/4 lying westerly of Gila Gravity Main Canal Right-of-Way;

    Section 6: all of Lots 2, 3, 4, 5, 6, 7 and that portion of Lot 1, S 1/2 NE 14, SE 1/4 lying westerly of Gila Gravity Main Canal R/W;

    Section 7: all of Lots 1, 2, 3, 4, E 1/2 W 1/2, S 1/2 E 1/2, and that portion of E 1/2 E 1/2 lying westerly of Gila Gravity Main Canal R/W;

    Section 8: that portion of W 1/2 W 1/2 lying westerly of Gila Gravity Main Canal R/W;

    Section 18: all of Lots 1, 2, 3, E 1/2 NW 1/4, and that portion of Lot 4, NE 1/4, E 1/2 SW 1/4, NW 1/4 SE 1/4 lying westerly of Gila Gravity Main Canal R/W.

    T6S, R22W

    Section 36: all of Lots 1, 2.

    T7S, R22W

    Section 1: all of Lot 1;

    Section 12: all of Lots 1, 2, SE 1/4 SE 1/4;

    Section 13: all of Lots 1, 2, 3, 4, 5, 6, 7, 8, NE 1/4, N 1/2 SE 1/4, and that portion of S 1/2 SE 1/4 lying northerly of Gila Gravity Main Canal R/W, all in G&SRB&M, Yuma County, Arizona.
16. Painted Rock Wildlife Area: The Painted Rock Wildlife Area shall be that area within the following described legal subdivisions:

    S 1/2, SW 1/4 Section 26; S 1/2 S 1/2 NW 1/4, NW 1/4 NW 1/4 Section 27; all of Sections 28 and 29; E 1/2, S 1/2 NW 1/4, E 1/2 SW 1/4, NW 1/4, SW 1/4 Section 30; S 1/2 SE 1/4, NE 1/4 SE 1/4, N 1/2 SW 1/4, SE 1/4 SW 1/4, SW 1/4 NW 1/4 Section 31; NE 1/4 NW 1/4 Section 35; all T4S R6W and NE 1/4, NE 1/4 SE 1/4, NE 1/4 NW 1/4 Section 33; all of Section 34; S 1/2, S 1/2 NE 1/4, S 1/2 NW 1/4 Section 35; all of Section 36; all T4S, R7W and N 1/2 N 1/2 Section 1, T5S, R7W, and N 1/2 N 1/2, SE 1/4 NE 1/4 Section 6, T5S, R6W; all in G&SRB&M, Maricopa County, Arizona.
17. Powers Butte (Mumme Farm) Wildlife Area: The Powers Butte Wildlife Area (otherwise known as Mumme Farm) is that area described in the following parcels. Parcel No. 1: S 1/2 NE 1/4, SE 1/4, E 1/2 SW 1/4 Section 34; T1S, R5W. Parcel No. 2: Lots 1 and 2 of Section 3; T2S, R5W. Parcel No. 3: NW 1/4 NE 1/4, E 1/2 NW 1/4, NW 1/4 NW 1/4 Section 10; T2S, R5W. Parcel No. 4: SE 1/4 SW 1/4 Section 15; T2S, R5W. Parcel No. 5: E 1/2 NW 1/4, NW 1/4 NW 1/4 Section 22; T2S, R5W. Parcel No. 6: SE 1/4 SE 1/4 Section 27; NE 1/4 NE 1/4 Section 34; T1S, R5W. Parcel No. 7: S 1/2 NE 1/4, W 1/2 SE 1/4 Section 3; T2S, R5W. Parcel No. 8: Lot 3, SE 1/4 NW 1/4, E 1/2 SW 1/4 Section 3; T2S, R5W, all in G&SRB&M, Maricopa County, Arizona.
18. Raymond Ranch Wildlife Area: Raymond Ranch Wildlife Area is described as follows: All of Sections 24, 25,

26, 34, 36, and the portions of Sections 27, 28, and 33 lying east of the following described line: Beginning at the west one-quarter corner of Section 33; thence northeasterly through the one-quarter corner common to Sections 28 and 33, one-quarter corner common to Sections 27 and 28 to the north one-quarter corner of Section 27 all in T19N, R11E. All of Sections 16, 17, 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33, and 34 all in T19N, R12E, all in G&SRB&M, Coconino County, Arizona.

19. Robbins Butte Wildlife Area: The Robbins Butte Wildlife Area shall be that area lying within the fenced portion of the S 1/2 SE 1/4 Section 21 and that portion of the SW 1/4 Section 21 lying 100 feet south of the main channel of the Gila River (Ca. 1960), the S 1/2 S 1/2, NE 1/4 SE 1/4 Section 22; the S 1/2, S 1/2 NE 1/4 Section 23; those portions of the SW 1/4, NW 1/4 W 1/2 SW 1/4 Section 24 and the NW 1/4 NW 1/4 Section 25 lying west of U.S. Hwy 85; the N 1/2 NE 1/4, SW 1/4 NE 1/4, NW 1/4 Section 26; the N 1/2 Section 27; the NE 1/4 Section 28, and that area in the NW 1/4 Section 28 lying north and east of a road extending in a northwest direction from the center of Section 28 to the west boundary of Section 28, all in T1S, R4W, G&SRB&M, Maricopa County, Arizona; consisting of approximately 1,681 acres.
20. Roosevelt Lake Wildlife Area: The Roosevelt Lake Wildlife Area shall be that area lying within the following described boundary: Beginning at the junction of A-Cross Road and AZ Hwy 188; south on AZ Hwy 188 to junction of AZ Hwy 88; east on AZ Hwy 88 to Carson's Landing; northeast across Roosevelt Lake to the south tip of Bass Point; directly north to the Long Gulch Road; northeast on this road to the A-Cross Road; northwest on the A-Cross Road to the point of beginning; all in Gila County, Arizona
21. Santa Rita Wildlife Area: The Santa Rita Wildlife Area is coincidental to the Santa Rita Experimental Range and includes the posted portion of the following sections: Sections 33 through 36, T17S, R14E, Section 25, Section 35 and Section 36, T18S, R13E, Sections 1 through 4, Sections 9 through 16, and Sections 21 through 36, T18S, R14E, Sections 3 through 9, Sections 16 through 21, Sections 26 through 34, T18S, R15E, Sections 1 through 6, Sections 9 through 16 Section 23, T19S, R14E, Sections 3 through 10, Sections 16 through 18, T19S, R15E; all in G&SRB&M, Pima County, Arizona, and all being coincidental with the Santa Rita Experimental Range Area.
22. Springerville Marsh Wildlife Area: The Springerville Marsh Wildlife Area shall be: S 1/2 SE 1/4 Section 27 and N 1/2 NE 1/4 Section 34, T9N, R29E, G&SRB&M, Apache County, Arizona.
23. Three Bar Wildlife Area: The Three Bar Wildlife Area shall be that area lying within the following described boundary: Beginning at Roosevelt Dam, northwesterly on AZ Hwy 188 to milepost 252 (Bumble Bee Wash); westerly along the boundary fence for approximately 7-1/2 miles to the boundary of Gila and Maricopa counties; southerly along this boundary through Four Peaks to a fence line south of Buckhorn Mountain; southerly along the barbed wire drift fence at Ash Creek to Apache Lake; northeasterly along Apache Lake to Roosevelt Dam.
24. Tucson Mountain Wildlife Area. The Tucson Mountain Wildlife Area shall be that area lying within the following described boundary: Beginning at the northwest corner of Section 33; T13S, R11E on the Saguaro National Monument boundary; due south approximately one mile to the El Paso Natural Gas Pipeline; southeast along this pipeline to Sandario Road; south on Sandario Road approximately two miles to the southwest corner of Section 15; T14S, R11E, east along the section line to the El Paso Natural Gas Pipeline; southeast along this pipeline to its junction with State Road 86, also known as the Ajo Highway; easterly along this highway to the Tucson city limits; north along the city limits to Silverbell Road; northwest along this road to Twin Peaks Road; west along this road to Sandario Road; south along this road to the Saguaro National Monument boundary; west and south along the monument boundary to the point of beginning, all in G&SRB&M, Pima County, Arizona.
25. Willcox Playa Wildlife Area: The Willcox Playa Wildlife Area shall be that area within the posted Arizona Game and Fish Department fences enclosing the following described area: Beginning at the section corner common to Sections 2, 3, 10 and 11, T15S, R25E, G&SRB&M, Cochise County, Arizona; thence S0°15'57"W, 2645.53 feet to the east one-quarter corner of Section 10; thence S89°47'15"W, 2578.59 feet to the center one-quarter corner of Section 10; thence N1°45'24"E, 2647.85 feet to the center one-quarter corner of Section 3; thence N1°02'42"W, 2647.58 feet to the center one-quarter corner of said Section 3; thence N89°41'37"E to the common one-quarter corner of Section 2 and 3; thence S0°00'03"W, 1323.68 feet to the south one-sixteenth corner of said Sections 2 and 3; thence S44°46'30"E, 1867.80 feet to a point on the common section line of Section 2 and Section 11; thence S44°41'13"E, 1862.94 feet to a point; thence S44°42'35"E, 1863.13 feet to a point; thence N0°13'23"E, 1322.06 feet to a point; thence S89°54'40"E, 1276.24 feet to a point on the west right-of-way fence line of Kansas Settlement Road; thence S0°12'32"W, 2643.71 feet along said fence line to a point; thence N89°55'43"W, 2591.30 feet to a point; thence N0°14'14"E, 661.13 feet to a point; thence N89°55'27"W, 658.20 feet to a point; thence N0°14'39"E, 1322.36 feet to a point; thence N44°41'19"W, 931.44 feet to a point; thence N44°40'31"W, 1862.85 feet to the point of beginning. Said wildlife area contains 543.10 acres approximately.

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective May 3, 1976 (Supp. 76-3). Editorial correction paragraph (14) (Supp. 78-5). Former Section R12-4-11 renumbered as Section R12-4-109 without change effective August 13, 1981 (Supp. 81-4). Amended by adding paragraphs (2) and (3) and renumbering former paragraphs (2) through (17) as paragraphs (4) through (19) effective May 12, 1982 (Supp. 82-3). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-110. Posting and access to state land**

**A.** For the purpose of this rule:

1. "Corrals", "feed lots", or "holding pens" mean completely fenced areas used to contain livestock for purposes other than grazing, including feeding, roundup, branding, doctoring, and other related purposes.
2. "Road" includes any maintained or unmaintained road that has been utilized by the public.
3. "State lands" means all land owned or held in trust by the state of Arizona which is managed by the Arizona State Land Department and lands which are owned or managed by the Arizona Game and Fish Commission.
4. "Trail" means a path that clearly shows or has a history of established use.

**B.** In addition to those prohibitions against posting in A.R.S. § 17-304, no person shall lock a gate, construct a fence, place an obstacle or otherwise commit an act which denies legally available access to or use of any existing trail or road upon state lands by persons lawfully taking wildlife. Any person in violation of this rule shall be responsible for taking immediate corrective action to remove any locks, fences or other obstacles unlawfully blocking access upon state lands. If immediate corrective action is not taken, a representative of the Department may remove any unlawful posting and remove any locks, fences or other obstacles unlawfully blocking access upon state lands. In addition, the Department may take appropriate legal action to recover expenses incurred in the removal of unlawful postings or obstacles blocking access upon state land.

**C.** The provisions of this rule shall not grant any person the right to trespass upon private land to gain access to any state land.

**D.** State lands within 1/4 mile of any occupied residence, cabin, lodge, or other building and lands within corrals, feed lots or holding pens containing concentrations of livestock other than for grazing purposes, may be posted against hunting or trapping without further action of the Commission.

**E.** State lands other than those referred to in subsection (D) of this rule may be posted to prohibit hunting, fishing or trapping only by permit from the Commission if the Commission determines that the closing is necessary:

1. Because the taking of wildlife would constitute an unusual hazard to permitted users.
2. To prevent unreasonable destruction of plant life or habitat.
3. For proper resources conservation, utilization and protection, including but not limited to high fire danger, excessive interference with mineral development, developed agricultural land, or timber or livestock operations.

**F.** Applications for posting state land to prohibit hunting, fishing or trapping pursuant to subsection (E), or to close a road or trail pursuant to subsection (I), shall be submitted pursuant to R12-4-610. When an application to close state land to hunting, fishing and trapping is made by a person other than the state land lessee, notice shall be given to the lessee and the State Land Commissioner prior to consideration of the application by the Commission. The lessee of the state land or the State Land Commissioner shall have 15 days after receipt of notice within which to file objections in writing to the application after which the matter shall be submitted to the Commission for determination.

**G.** A person may utilize a vehicle on or off a road to pick up legally killed big game animals.

**H.** The closing of state land to hunting, fishing or trapping shall not be deemed to restrict any other permitted use of the land.

**I.** State trust land may be posted with signs that read "State Land No Trespassing" but such posting shall not prohibit access to such land by persons lawfully taking wildlife.

**J.** Permission to lock or obliterate a gate or to close a road or trail providing legally available access to licensed hunters and fishermen to state trust lands may be granted by the Commission when access to such lands is provided by a reasonable alternate route. The Director may grant a permit for a lessee of state trust lands to temporarily lock a gate or close a road providing access in an area of such lands where persons taking wildlife would cause an unreasonable interference during a critical livestock or commercial operation. Said permit shall not exceed 30 days. Applications for permits in excess of 30 days shall be submitted to the Commission for approval. When a permit is issued granting a temporary road or gate closure, a copy of the permit shall be posted at the point of the closure during the period of the closure.

**K.** In exercising hunting, fishing and trapping privileges on state land no licensee shall:

1. Break or remove any lock or cut any fence to gain access to state land.
2. Intentionally or wantonly destroy, deface, injure, remove or disturb any building, sign, equipment, marker or other property.
3. Harvest or remove any vegetative or mineral resources or object of antiquity, historic, or scientific interest.
4. Appropriate, mutilate, deface, or destroy any natural feature, object or natural beauty, antiquity, or other public or private property.
5. Dig, remove, or destroy any tree or shrub.
6. Gather or collect renewable or non-renewable resources for the purpose of sale or barter unless specifically permitted or authorized by law.
7. Drive or operate motorized vehicles or otherwise conduct himself in a manner that may result in unnecessary frightening or chasing of domestic livestock or wildlife or that unnecessarily endangers the lives or the safety of others.

**Historical Note**

Adopted effective June 1, 1977 (Supp. 77-3). Editorial correction subsection (F) (Supp. 78-5). Former Section R12-4-13 renumbered as Section R12-4-110 without change effective August 13, 1981 (Supp. 81-4). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-111. Identification Number**

**A.** An applicant for a Department identification number may either:

1. Assign his or her own number by using his or her social security number; or
2. Obtain a number from the Department by providing the Department with full name and any aliases, date of birth, and mailing address.

**B.** This rule is effective January 1, 1995.

**Historical Note**

Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-05 renumbered as Section R12-4-111 without change effective August 13, 1981 (Supp. 81-4). Section R12-4-111 repealed effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). New Section adopted effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-112. Diseased or injured wildlife**

**A.** The Director may authorize Department employees to condemn, upon request of a licensee, the carcass of a lawfully taken and lawfully possessed diseased or injured big game animal that is, in the opinion of the employee, unfit for human consumption, if this condition was not created by the actions of the person who took the animal.

**B.** The entire big game animal so condemned shall be surrendered to the Department employee.

**C.** After condemnation and surrender of the big game, the licensee may be authorized in writing, by the Department employee, to purchase and use a duplicate tag. Such tag may be purchased from any dealer where the tag is available. The license dealer shall forward the written authorization to the Department with the report of the tag sale.

**Historical Note**

Former Section R12-4-04 renumbered as Section R12-4-112 without change effective August 13, 1981 (Supp. 81-

4). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-113. Small game depredation permit**

**A.** Pursuant to A.R.S. § 17-239(D), the Commission finds that it is impractical to resolve property damage problems caused by small game by establishing special seasons or bag limits for the purpose of cropping small game by hunters. The Commission does find it practical to waive license fees, bag limits, and seasons for small game depredation.

**B.** The Department may therefore issue a nonfee permit to take small game to the landowner, lessee, livestock operator or municipality suffering damage, when the Department determines that all other remedies to A.R.S. § 17-239(A), (B), and (C) have been exhausted and the take of such small game is necessary to alleviate the damage being caused. A small game depredation permit is valid for migratory birds only when the permittee obtains a federal special purpose permit pursuant to 50 CFR 21.27, revised October 1, 1988, not including any later amendments, which is incorporated by reference herein. A copy of the incorporated matter is on file with the Secretary of State and available for inspection at any Department office, or it may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

**C.** Notwithstanding the requirements of R12-4-304, R12-4-318, and R12-4-309, persons or municipalities issued a small game depredation permit pursuant to this rule may take depredating small game by whatever safe and humane means are practical for the particular situation.

**Historical Note**

Adopted effective August 5, 1976 (Supp. 76-4). Former Section R12-4-12 renumbered as Section R12-4-113 without change effective August 13, 1981 (Supp. 81-4). Amended as an emergency effective September 20, 1985, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 85-5). Amended effective May 5, 1986 (Supp. 86-3). Section R12-4-113 repealed, new Section R12-4-113 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-114. Issuance of Nonpermit-tags and Hunt Permit Tags**

**A.** In accordance with A.R.S. § 17-332 and the provisions of this rule, the Department shall annually provide numbered tags for sale to the public. Each tag includes a transportation and shipping permit as prescribed in A.R.S. §§ 17-332 and 17-371. Tags are made of tear-resistant material with an adhesive back covered by a detachable paper backing and clearly identify, when issued, the animal for which the tag is valid.

**B.** When the Commission establishes a big game season for which a hunt number is not assigned, license dealers and Department offices shall sell nonpermit-tags.

1. To obtain a nonpermit-tag, an applicant shall provide to a license dealer or Department office the applicant's name, address, and identification number.
2. An applicant shall not apply for or obtain nonpermit-tags in excess of the bag limit prescribed by the Commission when it established the season for which the nonpermit-tags are valid.

**C.** When the number of hunt permits for a species in a particular hunt area must be limited, a Commission order establishes a hunt number for that hunt area, and a hunt permit-tag is required to take the species in that hunt area.

1. To apply for a hunt permit-tag, an applicant shall submit an application pursuant to R12-4-104.
2. The Department uses the following procedure to determine whether a hunt permit-tag will be issued to an applicant:
   a. The Department reserves a maximum of 10% of the hunt permits for each hunt number for elk, buffalo, bighorn sheep, and antelope to issue to persons and groups who have bonus points which have been issued according to R12-4-107.
   b. The Department issues the reserved hunt permit-tags for hunt numbers designated by eligible applicants as their 1st or 2nd choices. The Department issues the reserved hunt permit-tags by random selection:
      i. First, to eligible applicants with the greatest number of bonus points for that genus.
      ii. Next, if there are reserved hunt permit-tags remaining, to eligible applicants with the next greatest number of bonus points for that genus.
      iii. If there are still tags remaining, to the next eligible applicants with the next greatest number of bonus points; continuing until all of the reserved tags have been issued or until there are no more applicants for that hunt number who have bonus points.
   c. First selection from all unreserved hunt permit-tags is by random drawing.
   d. When the bag limit established by Commission order is more than 1 per calendar year, or when there are hunt permit-tags remaining unissued after the random drawings, these hunt permit-tags are available on a set date on a 1st-come, 1st-served basis by mail or over the counter from Department offices as specified in the hunt permit-tag application schedule published annually by and available from the Department.

**D.** The Department shall ensure that no more than 10% of the total available bighorn sheep or buffalo hunt permit-tags in any calendar year are issued to nonresidents and that no more than 50% nor more than 2 bighorn sheep or buffalo hunt permit-tags in any hunt number are issued to nonresidents.

**E.** The Department shall ensure that no more than 10% of the total available hunt permit-tags are issued to nonresidents for the following hunts, except that when hunt numbers have 10 or less available hunt permit-tags, no more than 1 hunt permit-tag is issued to a nonresident:

1. All hunts for bull elk;
2. All hunts for antlered deer north of the Colorado River.

**F.** This rule is effective January 1, 1997.

**Historical Note**

Adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4). Amended effective January 1, 1997; filed with the Office of the Secretary of State November 7, 1996 (Supp. 96-4).

**R12-4-115. Depredation Hunts**

**A.** For the purposes of this rule, a "depredation hunt" is a season established by the Commission for the purpose of removing depredating wildlife pursuant to A.R.S. § 17-239.

**B.** To participate in a depredation hunt, a person shall obtain a depredation tag issued pursuant to this rule. A depredation tag is valid only for the depredation hunt for which issued.

**C.** The Department shall maintain a file of applications for depredation tags. The file shall be purged and renewed annually, but the Department may advertise for and accept new applications

as needed. When the Commission establishes a depredation hunt, the Department shall randomly select applicants from the current file. The Department shall attempt to contact each applicant by telephone at least three times during a 24-hour period. If the applicant cannot be contacted or cannot participate in the hunt, the application shall be returned to the file and another drawn. The Department shall draw no more applications after the number of depredation tags established by the Commission have been issued.

**D.** Applicants for depredation tags shall submit the following information on a form available from the Department. Only the permit application fee prescribed in R12-4-102 shall be included with the application form. Neither a current hunting license number nor a fee or application for a hunting license shall be required with the application form. "Group" applications as prescribed in R12-4-104 shall not be accepted.
1. Name, address, whether a resident or nonresident, and date of birth;
2. Daytime and evening telephone numbers;
3. The species which the applicant would like to hunt if drawn.

**E.** An applicant who is drawn and wishes to participate in a depredation hunt may obtain the depredation tag as follows:
1. Submitting the fee for the tag, as prescribed in R12-4-102.
2. Providing the number of the hunting license valid for the year of the depredation hunt.
3. Depredation tags shall be reserved by the Department for any applicant only for the period of time specified by the Department when contact is made. Tags not purchased within the specified period of time shall be reserved for another applicant drawn from the current file pursuant to this rule. Successful applicants who do not purchase a tag after being contacted and agreeing to purchase the tag shall be removed from the current file.

**F.** The provisions of R12-4-309 and R12-4-609 shall not apply to depredation hunts. An application submitted in accordance with this rule shall not invalidate any application for a hunt permit-tag. A person shall not be issued both a depredation tag and a hunt permit-tag for the same genus for the same calendar year unless the bag limit for that genus equals or exceeds two.

**G.** This rule is effective January 1, 1993.

**Historical Note**

Adopted effective June 13, 1977 (Supp. 77-3). Former Section R12-4-14 renumbered as Section R12-4-115 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-115 renumbered as Section R12-4-607 without change effective December 22, 1987 (Supp. 87-4). New Section R12-4-115 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4).

**R12-4-116. Reward payments**

**A.** Subject to the restrictions in A.R.S. § 17-315, any person may claim a reward for providing information to the Department and shall be eligible to receive a reward as prescribed in subsections (D) or (E) of this rule provided that:
1. Funds are available in the wildlife theft prevention fund; and
2. The claimant requests payment of the reward via the "operation game thief" telephone reporting system and provides the control number prescribed in subsection (B) of this rule; and
3. When more than one person provides information or evidence leading to an arrest for a single incident, the reward may be divided among the persons supplying information in amounts commensurate with the information or evidence supplied. Once the maximum amount has been paid on any case, no subsequent claim shall be paid; and
4. Rewards shall not be paid to individuals who provide information resulting in their own arrest; and
5. Rewards apply only to violations of A.R.S. Title 17 and the rules promulgated thereunder or to federal wildlife violations occurring within Arizona not including on Indian reservations.

**B.** The Department shall advise all individuals providing information that rewards are available and the procedure for claiming a reward. The Department shall also provide each individual with the control number assigned to the reported incident.

**C.** The Department shall verify that the information provided did lead to an arrest before paying a reward.

**D.** Following is the schedule of reward payments per case:
1. In cases involving bighorn sheep, buffalo, elk or bald eagles, $350;
2. In cases involving deer, antelope, lion, bear, turkey, javelina or endangered or threatened species as defined in R12-4-401, $250;
3. One-half the minimum value established by A.R.S. § 17-314 up to $150, but not less than $50, in cases involving wildlife not listed in paragraphs (1) or (2) of this subsection; or
4. In cases not covered in paragraphs (1), (2), or (3) of this subsection, $50.
5. In cases involving any big game animal or bald eagle, or endangered or threatened species, up to $1,000 may be paid, based on the value of the information provided and:
   a. The unusual value of an animal; or
   b. The number of animals taken; or
   c. Arrest for commercialization of wildlife; or
   d. The arrest of a repeat offender.

**E.** Subsection (D) of this rule notwithstanding, the Department may offer and pay a reward up to the minimum civil value of the wildlife lost, as established by A.R.S. § 17-314, when a violation is discovered and the Department believes that a reward may result in sufficient information to make an arrest.

**Historical Note**

Adopted effective January 10, 1979 (Supp. 79-1). Former Section R12-4-15 renumbered as Section R12-4-116 without change effective August 13, 1981 (Supp. 81-4). Amended effective December 18, 1985 (Supp. 85-6). Section R12-4-116 repealed, new Section R12-4-116 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-117. Indian reservations**

No state license, tag, or permit is required to hunt or fish on any Indian Reservation in this state. Wildlife lawfully taken on an Indian Reservation may be transported or processed anywhere in the state when it can be identified as to species and legality as provided in A.R.S. § 17-309(A)(20). All wildlife transported is subject to inspection under the provisions of A.R.S. § 17-211(D)(4).

**Historical Note**

Former Section R12-4-02 renumbered as Section R12-4-117 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-117 repealed, new Section R12-4-117 adopted effective April 10, 1984 (Supp. 84-2).

**R12-4-118. Repealed**

**Historical Note**

Adopted effective April 8, 1983 (Supp. 83-2). Section

R12-4-118 repealed effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-119. Arizona Game and Fish Department Reserve**

**A.** There shall be an Arizona Game and Fish Department Reserve established pursuant to A.R.S. § 17-214, consisting of:
1. Commissioned reserve officers.
2. Noncommissioned reserve volunteers.

**B.** Commissioned reserve officers shall:
1. Meet and maintain the minimum qualifications and training requirements necessary for peace officer certification by the Arizona Law Enforcement Officer Advisory Council as prescribed in A.A.C. Title 13, Chapter 4.
2. Assist with wildlife enforcement patrols, boating enforcement patrols, special investigations and other enforcement and related nonenforcement duties as designated by the Director.

**C.** Noncommissioned reserve volunteers:
1. May be required to meet qualifications prescribed by the Director when such qualifications are directly related to the services to be performed by the volunteer and to the success or safety of the program mission to be accomplished.
2. Shall perform such duties as prescribed by the Director for the purposes of conservation and education which will maximize paid staff time.

**Historical Note**

Adopted effective September 29, 1983 (Supp. 83-5). Section R12-4-119 repealed, new Section R12-4-119 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-120. Issuance, sale, and transfer of special big game license tags**

**A.** Proposals for special big game license tags pursuant to A.R.S. § 17-346 shall be submitted to the Director of the Arizona Game and Fish Department during the period between July 1 and September 30 preceding the year when the tags may be legally used. The proposal shall contain and identify:
1. The name of the organization making the request and the names, addresses, and telephone numbers of those members of the organization who are coordinating the proposal.
2. The number of special big game license tags requested and the species for which each would be valid.
3. The purpose to be served by the issuance of these tags.
4. The methods by which the tags would be sold and transferred.
5. The estimated amount of money to be raised and the rationale for that estimate.
6. Any special needs or particulars relevant to the proposal, including time frame, limitations, or schedules.
7. Unless a current and correct copy is already on file with the Department, one copy of the organization's articles of incorporation shall accompany the proposal with proof that the organization has tax-exempt status.
8. The proposal or a letter accompanying the proposal shall include a statement that the proposer agrees to the conditions set forth in A.R.S. § 17-346 and this rule and shall be signed and dated by the president and secretary-treasurer of the organization or their equivalent.

**B.** The Director shall return to the applicant any application which does not conform with the requirements of A.R.S. § 17-346 or this rule but shall submit all timely and valid applications to the Commission for consideration. In selecting an applicant, the Commission shall consider the written proposal and the proposed uses for tag proceeds, the qualifications of the applicant as a fund raiser, the proposed fund raising plan, the applicant's previous involvement with wildlife management, and its conservation objectives. The Commission may accept any proposal in whole or in part and may reject any proposal when it is in the best interest of wildlife to do so. Commission approval and issuance of any special big game license tag is contingent upon compliance with subsections (C) and (D) of this rule.

**C.** All successful applicants shall agree in writing to the following:
1. To underwrite all promotional and administrative costs to sell and transfer each special big game license tag;
2. To transfer all proceeds to the Department for the purposes of wildlife management;
3. To sell and transfer each special big game license tag as described in the proposal;
4. To provide the Department with the name, address, and physical description of each individual to whom each special big game license tag is transferred.

**D.** The Department and the successful applicant shall agree to:
1. The specific projects or purposes identified in the proposal.
2. The arrangements for the deposit of the proceeds, the accounting procedures, and final audit.
3. The dates when the wildlife project or purpose will be accomplished.

**E.** All proceeds generated by the sale or transfer of a special big game license tag shall be dedicated for use for the species for which the tag was issued and shall not be refunded.

**F.** A special big game license tag shall be valid only for the individual named on the tag and for the species for which the tag was issued and shall not require a hunting license to be valid. Possession of a special big game license tag shall not invalidate any other big game tag or application for any other big game tag. Wildlife taken under the authority of a special big game license tag shall not count in the normal bag limit for that species.

**Historical Note**

Adopted effective September 22, 1983 (Supp. 83-5). Amended effective April 7, 1987 (Supp. 87-2). Correction, balance of language in subsection (I) is deleted as certified effective April 7, 1987 (Supp. 87-4). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1).

**R12-4-121. Repealed**

**Historical Note**

Adopted effective October 10, 1986, filed September 25, 1986 (Supp. 86-5). Rule expired one year from effective date of October 10, 1986. Rule readopted without change for one year effective January 22, 1988, filed January 7, 1988 (Supp. 88-1). Rule expired effective January 22, 1989 (Supp. 89-1). New Section R12-4-121 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Repealed effective January 1, 1993; filed December 18, 1992 (Supp. 92-4).

**R12-4-122. Handling, transportation, processing and storing of game meat given to public institutions and charitable organizations**

**A.** Pursuant to A.R.S. § 17-240 and this rule, the Department may donate the following wildlife, except that the Department shall not donate any portion of an animal killed in a collision with a motor vehicle or which has died subsequent to immobilization by any chemical agent:
1. Big game, except bear, lion, and javelina;

2. Upland game birds;
3. Migratory game birds;
4. Game fish.

**B.** The Director shall not authorize any employee to handle game meat for the purpose of this rule until the employee has satisfactorily completed a course designed to give the employee the expertise necessary to protect game meat recipients from diseased or unwholesome meat products. The course shall be conducted or approved by the State Veterinarian. A certificate shall be provided to the employee to certify satisfactory completion of the course.

**C.** Only employees authorized by the Director shall handle game meat determined safe and appropriate for donation. Carcasses shall be inspected and field dressed prior to transport. The game meat shall be in Department possession for the purpose of transport for a period not to exceed 48 continuous hours and shall be reinspected for wholesomeness prior to final delivery to the recipient.

**D.** Final processing and storage shall be the responsibility of the recipient.

**Historical Note**
Adopted effective August 6, 1991 (Supp. 91-3).

**R12-4-123. Expenditure of Funds**

**A.** The Director may expend funds arising from appropriations, licenses, gifts, or other sources, in compliance with applicable laws and rules, and:
1. For purposes designated by lawful Commission agreements and Department guidelines;
2. In agreement with budgets approved by the Commission;
3. In agreement with budgets appropriated by the legislature;
4. With regard to a gift, for purposes designated by the donor, the Director shall expend undesignated donations for a public purpose in furtherance of the Department's responsibilities and duties.

**B.** The Director shall ensure that the Department implements internal management controls to comply with subsection (A) and to deter unlawful use or expenditure of funds.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**ARTICLE 2. MISCELLANEOUS LICENSES AND PERMITS**

**R12-4-201. Pioneer license**

**A.** In addition to urban fishing privileges granted in A.R.S. § 17-333(A)(9), a pioneer license shall grant all of the hunting and fishing privileges of a Class F combination hunting and fishing license.

**B.** Persons meeting the criteria set forth in A.R.S. §17-336(1) may apply for a pioneer license as follows:
1. Persons who have not previously been granted a pioneer license shall submit one of the following documents with their application. Original or certified copies shall be returned to the applicant after the Department has verified receipt on the application form.
   a. Passport; or
   b. Original or certified copy of the applicant's birth certificate; or
   c. Original or photocopy of valid Arizona driver's license; or
   d. Original or photocopy of valid Arizona Motor Vehicle Division identification card.
2. Application shall be made on a form available from any Department office. The form shall include an affidavit to be signed by the applicant attesting that the applicant has been a resident of this state for 25 or more consecutive years immediately preceding application for the license. The applicant shall provide the following on the form:
   a. Full name, age, date of birth, identification number, and physical description;
   b. Current residence address, or physical location of residence;
   c. The year Arizona residency was established;
   d. Current mailing address;
   e. Applicant's signature shall be either witnessed by a Department employee or notarized.

**C.** Failure to comply with subsection (B) of this rule, or providing false information upon or with the application for a pioneer license, shall result in denial of the license.

**D.** The Department shall issue the license or deny the application within 30 calendar days of receipt of the documents prescribed in subsection (B).

**E.** The Department shall issue a duplicate pioneer license without charge upon written request from the licensee stating that the original license has been lost or destroyed, when Department records prove that the original pioneer license was issued to the licensee.

**F.** This rule is effective January 1, 1995.

**Historical Note**
Former Section R12-4-31 renumbered as Section R12-4-201 without change effective August 13, 1981. New Section R12-4-201 amended effective August 31, 1981 (Supp. 81-4). Amended subsection (B) effective December 9, 1985 (Supp. 85-6). Amended subsections (D) and (E), and changed application for a Pioneer License effective September 24, 1986 (Supp. 86-5). Former Section repealed, new Section adopted effective December 22, 1989 (Supp. 89-4). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-202. Disabled veteran's license**

**A.** A disabled veteran's license shall grant all of the hunting and fish privileges of a Class F combination hunting and fishing license and an urban fishing license.

**B.** Persons meeting the criteria set in A.R.S. §17-336(2) may apply for a disabled veteran's license as follows. Eligibility for the license is based on 100% disability and not on the percentage of compensation.
1. The application shall be accompanied by current certification from the Veteran's Administration that disabilities are rated as 100% disabling. In addition, the certification shall attest that the disabilities are permanent, are service connected, and that compensation is being received.
2. The applicant shall provide the following on the application form available from any Department office:
   a. Full name and date of birth, and physical description;
   b. Current residence address, or physical location of residence;
   c. Current mailing address;
   d. If applicant has resided at current location for less than one year, the residence address or physical location of each residence within the year immediately preceding application;
   e. Applicant's signature shall be either witnessed by a Department employee or notarized.

**C.** Failure to comply with subsection (B) of this rule, or providing false information upon or with the application for a disabled veteran's license, shall result in denial of the license.

**D.** The Department shall issue the license or deny the application within 30 calendar days of receipt of the application prescribed in subsection (B).

**E.** The Department shall issue a duplicate disabled veteran's license without charge upon written request from the licensee stating that the original license has been lost or destroyed, when Department records prove that the original disabled veteran's license was issued to the licensee.

**F.** A disabled veteran's license is valid for three years from the date of issuance.

**Historical Note**

Former Section R12-4-66 renumbered, then repealed and readopted as Section R12-4-43 effective February 20, 1981 (Supp. 81-1). Former Section R12-4-43 renumbered as Section R12-4-202 without change effective August 13, 1981 (Supp. 81-4). Amended effective December 31, 1984 (Supp. 84-6). Repealed effective April 28, 1989 (Supp. 89-2). New Section R12-4-202 adopted effective December 22, 1989 (Supp. 89-4).

**R12-4-203. National Harvest Information Program (HIP)**

**A.** An individual taking ducks, geese, doves, band-tailed pigeons, snipe, coots, common moorhen, or blue grouse shall have in possession either:

1. A Harvest Information Program (HIP) stamp, affixed to the back of a Class F, G, or H license; or
2. A Harvest Information Program code number, written in the designated space on the back of a Class F, G, or H license.

**B.** HIP stamps and code numbers are available from the Department annually from July 1 through March 10, and are valid from September 1 through March 10. To obtain the stamp or the code number, individuals shall provide their name, mailing address, date of birth, hunting license number, identification number (if available), and information regarding past and anticipated hunting activities. The HIP stamp or code number validates a license for taking band-tailed pigeons only if the individual indicates the intent to take band-tailed pigeons at the time of application.

1. Individuals may obtain a HIP stamp by providing the required information to the Department on a form available in the annual "Hunt Regulations" publication or available from any Department office.
2. Individuals may obtain a HIP code number by providing the required information by touch-tone telephone to a toll-free number available from the Department.

**C.** This rule is effective July 1, 1997.

**Historical Note**

Amended effective March 7, 1979 (Supp. 79-2). Amended effective April 22, 1980 (Supp. 80-2). Amended subsections (A), (C), (D), and (G) effective December 29, 1980 (Supp. 80-6). Former Section R12-4-41 renumbered as Section R12-4-203 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (A), (C), (E), (G) and added Form 7016 (Supp. 81-6). Repealed effective April 28, 1989 (Supp. 89-2). New Section adopted effective July 1, 1997; filed with the Office of the Secretary of State November 7, 1996 (Supp. 96-4).

**Editor's Note**

For similar subject matter, see Section R12-4-411. This editor's note does not apply to the new Section adopted effective July 1, 1997 (Supp. 96-4).

**R12-4-204. Repealed**

**Historical Note**

Amended effective May 31, 1976 (Supp. 76-3). Correction, Historical Note Supp. 76-3 should read "Amended effective May 3, 1976" (Supp. 78-5). Amended effective March 7, 1979 (Supp. 79-2). Amended effective March 20, 1981 (Supp. 81-2). Former Section R12-4-32 renumbered as Section R12-4-204 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-412.

**R12-4-205. Repealed**

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Editorial correction subsection (A) (Supp. 78-5). Amended effective March 7, 1979 (Supp. 79-2). Amended effective September 23, 1980 (Supp. 80-5). Former Section R12-4-33 renumbered as Section R12-4-205 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-413.

**R12-4-206. Repealed**

**Historical Note**

Amended effective March 7, 1979 (Supp. 79-2). Amended effective December 4, 1980 (Supp. 80-6). Former Section R12-4-34 renumbered as Section R12-4-206 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-414.

**R12-4-207. Repealed**

**Historical Note**

Amended effective March 7, 1979 (Supp. 79-2). Amended effective December 4, 1980 (Supp. 80-6). Former Section R12-4-35 renumbered as Section R12-4-207 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Sections R12-4-415 and R12-4-416.

**R12-4-208. Guide License**

**A.** A hunting guide license authorizes the licensee to act as a guide for taking wildlife, other than aquatic wildlife. A fishing guide license authorizes the licensee to act as a guide for taking aquatic wildlife only. A hunting and fishing guide license authorizes the licensee to act as a guide for taking all wildlife. No person shall act as a guide as defined in A.R.S. § 17-101 unless at the time he or she has a valid license therefor on his or her person and exhibits it upon request to any peace officer. A copy of the valid guide license shall be acceptable for this purpose.

**B.** In addition to the requirements at A.R.S. § 17-362, the following criteria are requisite to approval of application for a guide license:

1. A guide license shall not be issued for five years from the date of conviction to any person who has been convicted of a felony violation of any of the federal laws cited hereafter, not including any later amendments of these laws,

all of which are incorporated by reference herein; a copy of each is on file with the Secretary of State and is available for inspection at any Department office:

a. Lacey Act, amended November 14, 1988, 16 U.S.C. 3371-3378.
b. Endangered Species Act, amended October 7, 1988, 16 U.S.C. 1531-1543.
c. Bald Eagle Protection Act, amended November 8, 1988, 16 U.S.C. 668-668c.
d. Airborne Hunting Act, amended October 18, 1972, 16 U.S.C. 742j-1.
e. Migratory Bird Treaty Act, amended November 8, 1978, 16 U.S.C. 703-711.

2. A guide license shall not be issued for five years from the date of conviction to any person convicted of violating the provisions of A.R.S. § 17-309(D).
3. The applicant's privilege to take wildlife shall not be under current suspension or revocation by the government of any state or of the United States.
4. An applicant for a hunting guide license shall have a current Arizona hunting license. An applicant for a current fishing guide license shall have a current Arizona fishing license. An applicant for a hunting and fishing guide license shall have a current Arizona hunting and fishing license.
5. An applicant for a hunting guide license shall answer correctly at least 80% of the questions in a written examination supervised and administered by the Department, related to:
   a. A.R.S. Title 17, Arizona Game and Fish Laws, and the rules on taking and handling of terrestrial wildlife promulgated thereunder.
   b. Requirements for guiding on federal lands.
   c. Identification of wildlife, special state and federal laws which may be relevant to certain species, and general knowledge of species habitat and wildlife which may occur in the same habitat.
   d. General knowledge of the types of habitat within the state, and knowledge of special jurisdictions.
6. An applicant for a fishing guide license shall answer correctly at least 80% of the questions in a written examination supervised and administered by the Department, related to:
   a. A.R.S. Title 17, Arizona Game and Fish Laws, and the rules on taking and handling of aquatic wildlife promulgated thereunder.
   b. A.R.S. Title 5, Chapter 3, Arizona Boating and Watersport Laws, and the rules on boating promulgated thereunder.
   c. Identification of aquatic wildlife species.
   d. General knowledge of special or concurrent jurisdictions upon bodies of water within the state.
7. An applicant for a hunting and fishing guide license shall comply with both subsections (B)(5) and (B)(6).
8. Any licensed guide who has once met the preceding examination requirements shall not be required to take the written examination when applying for renewal of a guide license issued pursuant to this rule except:
   a. If, within the past year, the applicant for authorization as a hunting guide has been convicted of a violation of A.R.S. Title 17, Arizona Game and Fish Laws, or the rules promulgated thereunder, related to taking and handling of terrestrial wildlife;
   b. If, within the past year, the applicant for authorization as a fishing guide has been convicted of a violation of A.R.S. Title 17, or the rules promulgated thereunder, related to taking and handling of aquatic wildlife; or of A.R.S. Title 5, Chapter 3, Arizona Boating Laws, and the rules promulgated thereunder;
   c. Application to add any guiding category to that currently authorized on a guide license shall require that the applicant answer correctly at least 80% of the questions in the examination relevant to the addition;
   d. The examination shall be required when application for renewal of a guide license is made after the expiration date of the license or when an annual report is not submitted as required by A.R.S. § 17-362.

**C.** The examination required in subsection (B) shall be administered quarterly by the Department at a Department office. The exact dates for testing shall be available from the Department by the first working day of each year. The written examination score shall be mailed to the applicant within seven working days of the examination date.

**D.** Application shall be made on a form provided by the Department. The application shall be accompanied by the written examination score, dated within the past 12 months, when an examination or required by subsection (B) of this rule. The Department shall issue the license or deny the application within 30 calendar days of receiving a completed application, except for those applications made pursuant to subsection (F). The following shall be provided by the applicant on the form:

1. Full name, date of birth, identification number, and physical description.
2. Whether resident or nonresident.
3. Current mailing address.
4. Arizona hunting or fishing license number or numbers.
5. Designation of guiding authority sought:
   a. Hunting guide.
   b. Fishing guide.
   c. Hunting and fishing guide.
6. Responses to questions directly related to the criteria set in subsection (B) of this rule.
7. Applicant's signature.

**E.** Applicants not previously licensed as a guide by the Department shall also provide one of the following with the application. Original or certified copies shall be returned to the applicant after the Department has verified receipt on the application form.

1. Passport; or
2. Original or certified copy of birth certificate; or
3. Original or photocopy of valid driver's license; or
4. Original or photocopy of valid Motor Vehicle Division identification card.

**F.** The Department shall accept applications for renewals of a guide license issued pursuant to this rule after December 1 of the year preceding the new license year. The current guide license will remain valid while application for renewal is pending with the Department, provided application is made prior to the expiration date and provided the annual report required by A.R.S. § 17-362 is received by January 10 of the new license year. If renewal application is not made prior to the expiration date or a report is received after January 10, the applicant shall be required to pass the examination prescribed in subsection (B). When the requirements of this subsection are met, renewals will be issued or denied by the Department by January 31 of the new license year.

**G.** Failure to comply with subsections (B), (D) or (E) of this rule, or providing false information upon or with application for a guide license, shall result in denial of that license, and any

guide license so obtained is void and of no effect from the date of issuance thereof.

**H.** A licensed guide shall not pursue or hold at bay any wildlife for any client who was not present during any part of the pursuit on the same day. A person may hold wildlife at bay only during daylight hours except when Commission order authorizes take of the species at night.

**I.** A guide license may be revoked by the Commission pursuant to A.R.S. § 17-362(A) for any conviction of violation of Title 17 wildlife laws or the rules promulgated thereunder while acting as a guide; or when any license held by the guide is revoked or suspended pursuant to A.R.S. § 17-340; or for conviction of a felony violation of the laws listed in subsection (B) of this rule or for revocation of the privilege to take wildlife by any government jurisdiction.

**J.** This rule is effective January 1, 1995.

**Historical Note**

Amended effective March 7, 1979 (Supp. 79-2). Former Section R12-4-40 renumbered as Section R12-4-208 without change effective August 13, 1981 (Supp. 81-4). Former rule repealed, new Section R12-4-208 adopted effective December 22, 1989 (Supp. 89-4). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-209. Repealed**

**Historical Note**

Adopted effective March 20, 1981 (Supp. 81-2). Former Section R12-4-42 renumbered as Section R12-4-209 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-417.

**R12-4-210. Repealed**

**Historical Note**

Former Section R12-4-39 repealed, new Section R12-4-39 adopted effective January 20, 1977 (Supp. 77-1). Editorial correction subsection (A), paragraph (2) (Supp. 78-5). Amended effective March 7, 1979 (Supp. 79-2). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-39 repealed, new Section R12-4-39 adopted effective March 17, 1981 (Supp. 81-2). Former Section R12-4-39 renumbered as Section R12-4-210 without change effective August 13, 1981 (Supp. 81-4). Amended effective December 16, 1982 (Supp. 82-6). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-418.

**R12-4-211. Repealed**

**Historical Note**

Amended effective March 7, 1979 (Supp. 79-2). Amended effective October 9, 1980 (Supp. 80-5). Former Section R12-4-36 renumbered as Section R12-4-211 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-419.

**R12-4-212. Repealed**

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective January 1, 1977 (Supp. 76-5). Former Section R12-4-37 renumbered as Section R12-4-211 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-422.

**R12-4-213. Repealed**

**Historical Note**

Amended effective March 7, 1979 (Supp. 79-2). Amended effective December 4, 1980 (Supp. 80-6). Former Section R12-4-38 renumbered as Section R12-4-213 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2).

**Editor's Note**

For similar subject matter, see Section R12-4-420.

**R12-4-214. Repealed**

**Historical Note**

Former Section R12-4-67 renumbered as Section R12-4-214 without change effective August 13, 1981 (Supp. 81-4). Repealed effective December 22, 1989 (Supp. 89-4).

**R12-4-215. Tournament Fishing Permit Regulations**

**A.** Application for a tournament fishing permit pursuant to A.R.S. § 17-347 requires that the following information be provided by the tournament director to the Department:

1. Name of tournament director, date of birth, telephone number, and mailing address. The "tournament director" means the individual designated by the sponsor as the person responsible for compliance with this rule.
2. Tournament name and sponsor.
3. Location and dates.
4. Anticipated number of participants.

**B.** A tournament fishing permit shall be available for inspection by Department personnel at the weigh-in sites.

**C.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective December 9, 1982 (Supp. 82-6). Section repealed, new Section adopted effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-216. Crossbow Permit**

**A.** "Crossbow permit" means a document issued by the Department that authorizes the named hunter to use a crossbow during an archery-only season established pursuant to R12-4-318.

**B.** A crossbow permit is valid only when the legal animal for the archery-only season may otherwise be taken by crossbow pursuant to R12-4-304. Possession of a crossbow permit does not waive any other requirement regarding method of take or licensing.

**C.** Applicants for a crossbow permit shall obtain from and submit to the Department a form that sets forth the following information:

1. Applicant's name, identification number, mailing address, and telephone number.
2. A statement from a physician licensed pursuant to A.R.S. §§ 32-1421 *et seq.* or 32-1821 *et seq.*, attesting that the applicant has a permanent disability of at least 90% impairment of function of 1 arm and providing the physician's typed or printed name, business address, and signature.

**D.** All information and documentation provided by an applicant for a crossbow permit is subject to verification by the Department.

**E.** The Department shall issue the crossbow permit or deny the application within 30 calendar days of receipt of the complete application.

**F.** The Department shall return, without denial or approval, an incomplete application for a crossbow permit unless the Department is able to obtain the information needed to complete the application. The Department shall attach a letter to a returned application that explains why the application is returned.

**G.** When an applicant is able to provide verbally the information that caused an application for a crossbow permit to be incomplete, the Department shall add the information to the application, note where each change is made, date each change, and indicate the source of the added information.

**H.** In accordance with R12-4-608, the Department shall provide written notice to an applicant whose application for a crossbow permit is denied and the applicant may appeal the denial to the Commission.

**I.** A crossbow permit is valid as long as the criteria for obtaining the permit are met, unless the Commission revokes the permit.

**J.** When acting under the authority of a crossbow permit, the crossbow permittee shall be in possession of and exhibit the crossbow permit upon request of a peace officer.

**K.** A crossbow permittee shall not transfer the permit to another individual or allow another individual to use the permit issued to the crossbow permittee.

**L.** After a hearing and upon sufficient cause showing, the Commission shall revoke the crossbow permit of a crossbow permittee who transfers the permit to another individual or allows another individual to use the permit. An individual whose crossbow permit is revoked by the Commission may petition the Commission for rehearing in accordance with R12-4-607.

**M.** This rule is effective January 1, 1996.

**Historical Note**

Adopted effective April 7, 1983 (Supp. 83-2). Repealed effective January 1, 1993; filed December 18, 1993 (Supp. 92-4). New Section adopted effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-217. Challenged Hunter Access\Mobility Permit**

**A.** The Department shall issue to qualified individuals a Challenged Hunter Access/Mobility Permit, also known as a CHAMP, that allows the following activities by the licensed hunter to whom the CHAMP is issued:

1. Discharge of a firearm or other legal hunting device from a motor vehicle when, under existing conditions, the discharge is otherwise lawful and the motor vehicle is motionless, is not on any road as defined by A.R.S. § 17-101, and has its engine turned off;
2. Discharge of a firearm or other legal hunting device from a watercraft (except a sinkbox), including those propelled by a motor, sail and wind, or both; when the motor has been shut off, the sail furled, or both; and progress has ceased. The watercraft may be drifting as a result of current or wind action, beached, moored, resting at anchor, or propelled by paddle, oars, or pole. A watercraft under power may be used to retrieve dead or wounded wildlife but no discharge of a firearm is permitted while the watercraft is underway;
3. Access to off-road locations in a motor vehicle when the access is not in conflict with other law and the motor vehicle is used as a place to wait for game. A motor vehicle shall not be used to chase or pursue game;
4. Designation of an assistant to track and dispatch a wounded animal, and to retrieve the animal, in accordance with the requirements of this rule.

**B.** A qualified individual who possesses a CHAMP shall comply with all legal requirements governing method of take and licensing.

**C.** Applicants for a CHAMP shall obtain from and submit to the Department a form that provides the following information:

1. Applicant's name, identification number, mailing address, and telephone number.
2. A statement from a physician licensed pursuant to A.R.S. §§ 32-1421 *et seq.* or 32-1821 *et seq.*, which includes the physician's printed or typed name, business address, and signature, attesting that the applicant is permanently disabled as follows:
   a. Has a disability or combination of disabilities creating a minimum impairment of function in 1 leg of no less than 90% or a maximal functional use of 1 leg of no more than 10% regardless of the functional level of the other leg; or
   b. Has a visual field of no more than 20% in the better eye; or
   c. Has vision in the better eye of 20/200 or less after best correction.

**D.** All information and documentation provided by the applicant for the CHAMP is subject to verification by the Department.

**E.** The Department shall issue the CHAMP or deny the application within 30 calendar days of receipt of the completed application.

**F.** The Department shall return, without denial or approval, an incomplete application for a CHAMP unless the Department is able to obtain the information needed to complete the application. The Department shall attach a letter to a returned application that explains why the application is returned.

**G.** When an applicant is able to provide verbally the information that caused an application for a CHAMP to be incomplete, the Department shall add the information to the application, note where each change is made, date each change, and indicate the source of the added information.

**H.** In accordance with R12-4-608, the Department shall provide written notice to an applicant whose application for a CHAMP is denied and the applicant may appeal the denial to the Commission.

**I.** While a motor vehicle or watercraft is in use pursuant to subsection (A), the CHAMP permittee shall display on the motor vehicle or watercraft the CHAMP vehicle placard issued by the Department with the CHAMP.

**J.** The Department shall provide CHAMP permittees with a dispatch permit that the CHAMP permittee may use to designate a licensed hunter as an assistant to dispatch and retrieve or to retrieve an animal wounded or killed by the CHAMP permittee. The CHAMP permittee shall designate the assistant only after the animal is wounded or killed. The CHAMP permittee shall ensure that designation on the permit is in ink and includes a description of the animal, the assistant's name and hunting license number, and the date and time the animal was wounded or killed. The CHAMP permittee shall also ensure compliance with the following requirements:

1. The site where the animal is wounded and from which tracking begins is marked so it can be identified later.
2. The assistant possesses the dispatch permit while tracking and dispatching the wounded animal.
3. The CHAMP permittee is in the field while the assistant is tracking and dispatching the wounded animal.
4. The assistant does not transfer the dispatch permit to anyone except the CHAMP permittee.

5. Dispatch is made by a method that is lawful for the take of the particular animal in the particular season.
6. The assistant attaches the dispatch permit to the carcass of the animal and returns the carcass to the CHAMP permittee, and the tag of the CHAMP permittee is affixed to the carcass.
7. If the assistant is unsuccessful in locating and dispatching the wounded animal, the assistant returns the dispatch permit to the CHAMP permittee who strikes the name and authorization of the assistant from the dispatch permit.

**K.** A dispatch permit is void when all spaces for designation of an assistant are filled or the dispatch permit is attached to a carcass.

**L.** A CHAMP is valid as long as the criteria for obtaining the permit are met, unless the Commission revokes the permit.

**M.** When acting under the authority of the CHAMP, the permittee shall be in possession of and exhibit the CHAMP upon request to a peace officer.

**N.** A CHAMP permittee shall not transfer the permit to another individual or allow another individual to use the permit issued to the CHAMP permittee.

**O.** After a hearing and upon sufficient cause showing, the Commission shall revoke the CHAMP of a permittee who transfers the permit to another individual or allows another individual to use the permit, or upon conviction of violating A.R.S. § 17-312 or any law governing the take of wildlife, or for violation of this rule. An individual whose CHAMP permit is revoked by the Commission may petition the Commission for rehearing in accordance with R12-4-607.

**P.** This rule is effective January 1, 1996.

**Historical Note**

Adopted effective October 9, 1980 (Supp. 80-5). Former Section R12-4-59 renumbered as Section R12-4-310 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-310 renumbered as R12-4-217 and amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-310 renumbered as R12-4-217 and amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Section repealed, new Section adopted effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-218. Repealed**

**Historical Note**

Adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Repealed effective November 7, 1996 (Supp. 96-4).

**R12-4-219. Renumbered**

**Historical Note**

Adopted as an emergency effective July 5, 1988 pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 88-3). Correction, Historical Note, Supp. 88-3, should read, "Adopted as an emergency effective July 15, 1988..."; readopted and amended as an emergency effective October 13, 1988 pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 88-4). Emergency expired. Readopted without change as an emergency effective January 24, 1989 pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-1). Emergency expired. Former Section R12-4-219 amended and adopted as a permanent rule and renumbered as Section R12-4-424 effective April 28, 1989 (Supp. 89-2).

**R12-4-220. Repealed**

**Historical Note**

Adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Repealed effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

## ARTICLE 3. TAKING AND HANDLING OF WILDLIFE

**R12-4-301. Restrictions for Taking Wildlife in Maricopa County Parks**

**A.** The lands and water lying within the boundaries of all Maricopa County Parks are open to hunting and trapping when a Commission order establishes an open season. Persons may use only the following methods of take:
1. Archery hunting, when lawful for the wildlife taken under R12-4-304.
2. Shotguns shooting shot, when taking small game, predatory, furbearing and nongame animals during quail season in Lake Pleasant, White Tank Mountains, McDowell Mountain and Estrella Mountain Regional Parks. See subsection (F).

**B.** A person is prohibited from using rifled firearms within the Maricopa County parks system except to take deer during deer seasons established by Commission order with concurrence of the Maricopa County Recreation Services Department.

**C.** A person shall not trap within the Maricopa County park system except under the provisions of A.R.S. § 17-239 or when the Maricopa County Recreation Services Department and the Arizona Game and Fish Department determine that predatory animal numbers need to be reduced in a park area because of a danger to the public or other wildlife.

**D.** A person shall not hunt within 1/4 mile of any developed picnic area, boat ramp, shooting range, golf course, or other recreational area developed for public use.

**E.** Persons entering any part of the Maricopa County Park System for the purpose of hunting shall declare their intention of hunting and pay any fees as required by Maricopa County Recreation Services Department at an entry station when entering the park, if the park has an entry station in operation.

**F.** This rule does not authorize a person to use a method of take which is prohibited by a city ordinance.

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective May 3, 1976, Amended effective June 7, 1976 (Supp. 76-3). Amended effective May 26, 1978 (Supp. 78-3). Editorial correction subsection (D) (Supp. 78-5). Amended effective June 4, 1979 (Supp. 79-3). Former Section R12-4-50 renumbered as Section R12-4-301 without change effective August 13, 1981 (Supp. 81-4). Amended subsection (A) effective May 12, 1982 (Supp. 82-3). Amended effective July 3, 1984 (Supp. 84-4). Amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective February 9, 1998 (Supp. 98-1).

**R12-4-302. Use of Tags**

**A.** In addition to meeting the requirements of A.R.S. § 17-331, an individual taking wildlife shall have in possession any tag required for the particular season or hunt area.

**B.** A tag obtained in violation of statute or rule is invalid and shall not be used to take, transport, or possess wildlife.
**C.** An individual taking wildlife shall not possess a tag issued to anyone else.
**D.** An individual shall not allow a tag issued to that individual to be attached to an animal killed by anyone else, except as provided in R12-4-217.
**E.** An individual shall not attach a tag issued to that individual to an animal killed by anyone else, except as provided in R12-4-217.
**F.** An individual shall use a tag to take only the animal identified on the tag.
**G.** An individual shall use a tag only in the season and hunt area for which the hunt permit-tag is issued.
**H.** Nonpermit-tags are not valid in hunt areas for which hunt permit-tags are required.
**I.** An individual who lawfully possesses both a nonpermit-tag and a hunt permit-tag shall not take a genus or species in excess of the bag limit established for that genus or species.
**J.** Immediately after an individual kills an animal, the individual shall attach the tag to the animal carcass in the following manner:
1. Remove all of the detachable paper cover from the adhesive back of the tag.
2. Seal the exposed adhesive portions of the tag around the animal so the tag cannot be removed and all printing on the face of the tag is visible.
   a. For a deer, elk, or antelope, seal tag around the antler or horn, or through the gambrel of a hind leg.
   b. For a javelina, bighorn sheep, mountain lion, or bear, seal the tag through the gambrel of a hind leg.
   c. For a turkey, seal the tag around a leg.
   d. For a sandhill crane, seal the tag around the leg or the neck.

**K.** When a tag has been sealed or mutilated, or the transportation and shipping permit included within the tag is signed or filled out, the tag is no longer valid for taking wildlife.
**L.** This rule is effective January 1, 1996.

**Historical Note**

Former Section R12-4-51 renumbered as Section R12-4-302 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (A), (D), (E), and repealed subsection (G) effective May 12, 1982 (Supp. 82-3). Amended effective March 23, 1983 (Supp. 83-2). Amended subsection (F) effective October 31, 1984 (Supp. 84-5). Amended subsections (A), (D), (F) and (G) and added a new Section (H) effective June 4, 1987 (Supp. 87-2). Amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Section R12-4-302 repealed, new Section R12-4-302 adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Section repealed, new Section adopted effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-303. Prohibited Devices and Ammunition**

In addition to the prohibitions prescribed in A.R.S. §§ 17-301(A) and 17-309(A)(6), (10), (19), and (21), the following devices and ammunition are prohibited for taking any wildlife in Arizona and a person shall not use or posses any of the following while taking wildlife:
1. Fully automatic firearms, including firearms capable of selective automatic fire;
2. Tracer ammunition, armor-piercing or full-jacketed bullets designed for military use;
3. Shotguns larger than 10 gauge; or shotguns capable of holding more than 2 shells in the magazine, unless plugged with a 1-piece filler limiting the magazine capacity to 2 shells, which cannot be removed without disassembling the gun;
4. Semiautomatic centerfire rifles with a magazine capacity of more than 5 cartridges;
5. Contrivances designed to silence, muffle, or minimize the report of a firearm;
6. Poisoned projectiles, or projectiles containing explosives;
7. Pitfalls of greater than 5-gallon size, explosives, poisons, or stupeying substances except as permitted in A.R.S. § 17-239, or as allowed by a scientific collecting permit issued under A.R.S. § 17-238. Persons using pitfalls as allowed under this rule shall remove the pitfalls when no longer in use and fill in any holes.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Amended effective April 29, 1977 (Supp. 77-2). Amended effective September 7, 1978 (Supp. 78-5). Former Section R12-4-52 renumbered as Section R12-4-303 without change effective August 13, 1981 (Supp. 81-4). Amended effective March 28, 1983 (Supp. 83-2). Amended subsections (A) and (C) effective October 31, 1984 (Supp. 84-5). Amended effective June 4, 1987 (Supp. 87-2). Former Section R12-4-303 repealed, new Section R12-4-303 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-303 repealed, new Section R12-4-303 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective February 9, 1998 (Supp. 98-1).

**R12-4-304. Lawful Methods for Taking Wild Mammals, Birds and Reptiles**

**A.** An individual may use the following methods to take big game. These methods are subject to the restrictions set forth in R12-4-318.
1. To take antelope:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges.
2. To take bear:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges;

h. Substances placed in a manner intended to attract bears are lawful only during seasons established under R12-4-318.

3. To take bighorn sheep:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges.
4. To take buffalo:
   a. At the House Rock Wildlife Area:
      i. Centerfire rifles;
      ii. Muzzleloading rifles;
      iii. All other rifles using black powder or synthetic black powder;
      iv. Bows having a standard pull of 50 or more pounds, using arrows with broadheads of no less than 7/8 inch in width with metal cutting edges.
   b. At the Raymond Ranch Wildlife Area:
      i. Centerfire rifles;
      ii. Muzzleloading rifles;
      iii. All other rifles using black powder or synthetic black powder.
5. To take deer:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges;
   h. Crossbows having a minimum draw weight of 125 pounds, using bolts with a minimum length of 16 inches and broadheads no less than 7/8 inch in width with metal cutting edges.
6. To take elk:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges.
7. To take javelina:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges;
   h. Crossbows having a minimum draw weight of 125 pounds, using bolts with a minimum length of 16 inches and broadheads no less than 7/8 inch in width with metal cutting edges;
   i. .22 rimfire magnum rifles;
   j. 5 mm rimfire magnum rifles.
8. To take mountain lion:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges.
9. To take turkey:
   a. Centerfire rifles;
   b. Muzzleloading rifles;
   c. All other rifles using black powder or synthetic black powder;
   d. Centerfire handguns;
   e. Handguns using black powder or synthetic black powder;
   f. Shotguns shooting slugs;
   g. Bows having a standard pull of 40 or more pounds, using arrows with broadheads no less than 7/8 inch in width with metal cutting edges;
   h. Crossbows having a minimum draw weight of 125 pounds, using bolts with a minimum length of 16 inches and broadheads no less than 7/8 inch in width with metal cutting edges;
   i. .22 rimfire magnum rifles;
   j. 5 mm rimfire magnum rifles;
   k. Shotguns shooting shot.

**B.** An individual may use the following methods to take small game. These methods are subject to the restrictions in R12-4-318.

1. To take cottontail rabbits and tree squirrels:
   a. Firearms not prohibited in R12-4-303,
   b. Bow and arrow,
   c. Crossbow,
   d. Pneumatic weapons,
   e. Slingshots,
   f. Falconry.
2. To take all upland game birds:
   a. Bow and arrow,
   b. Falconry,
   c. Shotguns shooting shot,
   d. Handguns shooting shot,
   e. Crossbow.
3. To take migratory game birds:
   a. Bow and arrow;
   b. Crossbow;
   c. Falconry;
   d. Shotguns shooting shot, except that individuals in areas designated by Commission order as “nontoxic shot zones” shall not possess lead shot while taking ducks, geese, swans, or coots.

**C.** Individuals may take waterfowl from any watercraft except a sinkbox, only under the following conditions:
1. Any motor has been shut off, any sail furled, and any progress from motor or sail has ceased;
2. The watercraft may be drifting as a result of current or wind action, beached, moored, resting at anchor, or may be propelled by paddle, oars, or pole;
3. An individual may use a watercraft under power to retrieve dead or crippled waterfowl but no shooting is permitted while the watercraft is underway.

**D.** An individual may take predatory and furbearing animals by using the following methods. These methods are subject to restrictions in R12-4-318. An individual may use artificial light while taking raccoon but shall not attach lights to or operate lights from a motor vehicle, including powerboats.
1. Firearms not prohibited in R12-4-303,
2. Bow and arrow,
3. Crossbow,
4. Traps as authorized by R12-4-307.

**E.** An individual may take nongame mammals and birds by any method except foot-hold steel traps or methods prohibited in R12-4-303 or R12-4-318. An individual may use artificial light while taking nongame mammals and nongame birds but shall not use firearms at night, and shall not attach lights to or operate moveable lights from a motor vehicle, including powerboats.

**F.** An individual may take reptiles, except soft-shell turtles, by any method not prohibited in R12-4-303 or R12-4-318. An individual may use artificial light while taking reptiles but shall not use firearms at night, and shall not attach lights to or operate lights from a motor vehicle, including powerboats.

**Historical Note**

Amended effective May 21, 1975 (Supp. 75-1). Amended effective May 3, 1976 (Supp. 76-3). Amended effective October 20, 1977 (Supp. 77-5). Amended effective January 11, 1978 (Supp. 78-1). Amended effective September 7, 1978 (Supp. 78-5). Amended effective November 14, 1979 (Supp. 79-6). Amended effective July 22, 1980 (Supp. 80-4). Former Section R12-4-53 renumbered as Section R12-4-304 without change effective August 13, 1981 (Supp. 81-4). Amended effective May 12, 1982 (Supp. 82-3). Amended effective April 7, 1983 (Supp. 83-2). Amended subsection (I) effective June 7, 1984 (Supp. 84-3). Amended effective February 28, 1985 (Supp. 85-1). Amended effective September 16, 1985 (Supp. 85-5). Amended effective June 4, 1987 (Supp. 87-2). Former Section R12-4-304 repealed, new Section R12-4-304 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-304 repealed, new Section R12-4-304 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Former Section R12-4-304 repealed, new Section R12-4-304 adopted effective February 9, 1998 (Supp. 98-1).

**R12-4-305. Possessing, Transporting, Importing, Exporting, and Selling Carcasses or Parts of Wild Mammals, Birds, and Reptiles**

**A.** For the purposes of this Section, "evidence of legality" means that wildlife is identifiable as to species and legality, and that the wildlife is accompanied by any appropriate license, tag, stamp, or permit required by law.

**B.** A person shall ensure that evidence of legality remains with the carcass or parts of a carcass of any wild mammal, bird, or reptile the person possesses or transports, until arrival at the person's permanent abode or commercial processing plant for processing or the place where the wildlife is to be consumed. A person possessing or transporting the following shall also ensure that:
1. Big game and sandhill cranes each have the required hunt permit-tag or nonpermit-tag attached as prescribed in R12-4-302.
2. Migratory game birds, except sandhill cranes, each have 1 fully feathered wing attached.
3. Each sandhill crane has either the fully feathered head or 1 fully feathered wing attached.
4. Each quail has attached a fully feathered head, or a fully feathered wing, or a leg with foot attached, if the current Commission order has established separate bag or possession limits for any species of quail.

**C.** A person who has lawfully taken a big game animal may authorize its transportation or shipment by completing and signing the transportation or shipping permit portion of the tag valid for that animal. A separate Transportation or Shipping Permit issued by the Department is necessary to transport or ship to another state or country any big game taken with a resident license. The person shall provide the following information on the permit form:
1. Number and description of wildlife to be transported or shipped;
2. Name of person who took wildlife and that person's address, license number, license class, and tag number;
3. Address of destination where wildlife is to be transported or shipped; and
4. Name and address of transporter or shipper.

**D.** A person shall not possess the horns of a bighorn sheep, taken by a hunter in Arizona, unless the horns are marked or sealed as prescribed in R12-4-308.

**E.** A person selling, offering for sale, or exporting the raw pelt of a bobcat taken in Arizona shall obtain a bobcat permit tag pursuant to R12-4-307, and shall ensure that the bobcat permit tag is locked through the mouth or eye openings so that it cannot be removed.

**F.** A person may import carcasses or parts of carcasses of wild mammals, birds, and reptiles which have been lawfully taken in another state or country when accompanied by license, tag or permit required from that state or country.

**G.** Persons who obtain buffalo meat under R12-4-306 may sell the meat.

**H.** This Section is effective April 1, 1997.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Former Section R12-4-54 renumbered as Section R12-4-305 without change effective August 13, 1981 (Supp. 81-4). Amended effective May 12, 1982 (Supp. 82-3). Amended effective June 14, 1983 (Supp. 83-3). Amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Section repealed, new Section adopted effective April 1, 1997; filed in the Office of the Secretary of State July 12, 1996 (Supp. 96-3).

**R12-4-306. Buffalo hunt regulations**

**A.** When authorized by Commission order, the Department shall conduct a hunt to harvest buffalo from the state's buffalo herds.

**B.** Hunters with buffalo tags for House Rock Ranch shall attend a pre-hunt orientation to be held at the ranch headquarters on the evening before the opening day of the hunt. All hunters at House Rock Ranch shall personally sign in at the ranch head-

quarters before hunting and shall personally sign out after hunting.

**C.** Hunters at Raymond Ranch shall be accompanied by a Department employee.

**D.** Each person receiving a buffalo hunt permit shall hunt in the order scheduled by the Department. The hunter shall shoot only the legal buffalo designated by his or her permit.

**Historical Note**

Former Section R12-4-55 renumbered as Section R12-4-306 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (A), (B), and (D) effective May 12, 1982 (Supp. 82-3). Amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2).

**R12-4-307. Trapping Regulations: Licensing; Methods; Tagging of Bobcat Pelts**

**A.** For the purposes of this Section, the following definitions apply:
1. "Body-gripping trap" means a device designed to capture an animal by gripping the animal's body.
2. "Confinement trap" means a device designed to capture wildlife alive and hold it without harm.
3. "Instant kill trap" means a device designed to render an animal unconscious and insensitive to pain quickly with inevitable subsidence into death without recovery of consciousness.
4. "Land set" means any trap used on land rather than in water.
5. "Leghold trap" means a device designed to capture an animal by the leg or foot.
6. "Paste-type bait" means a partially liquefied substance intended for use as a lure for animals.
7. "Sight-exposed bait" means a carcass or parts of a carcass lying openly on the ground or suspended in a manner that it can be seen from above by a bird. This does not include dried or bleached bones with no attached tissue or less than 2 ounces of paste-type baits or trap flags.
8. "Trap flag" means an attractant made from materials other than animal parts that is suspended at least 3 feet above the ground.

**B.** A valid trapping license is required of any person 14 years of age or older for trapping predatory and fur-bearing animals. Traps may be used to take such wildlife only during the trapping season established by Commission order.

**C.** All trappers shall inspect their traps daily and kill or release all predatory and fur-bearing animals. A trapper shall release without additional injury all animals that cannot lawfully be taken by trap. Every trapper shall possess while in the field a device designed or manufactured to restrain trapped animals so that they can be removed from the traps when their release is required by this rule. A trapper, in units designated by Commission Order as javelina hunt units, shall possess a choke restraint device sufficient to release a javelina.

**D.** It is unlawful for any individual to:
1. Set a trap within 1/2 mile of any of the following areas developed for public use: a boat launching area, picnic area, camping area, or roadside rest area;
2. Set a trap within 1/2 mile of any occupied residence or building without permission of the owner or resident;
3. Set a trap within 100 yards of an interstate highway or any other highway maintained by the Arizona Department of Transportation, within 25 yards of any other road as defined by A.R.S. § 17-101, or within 50 feet of any trail maintained for public use by a government agency;
4. Set a leghold trap within 30 feet of a sight-exposed bait;
5. Bait a confinement trap with live animals or portions of game mammals, big game, small game, upland game birds, migratory game birds, or game fish, or use bait with a confinement trap that is not wholly contained within the confinement trap;
6. Use any trap with teeth;
7. Use any snare;
8. Use any trap with a jaw spread exceeding 6 1/2 inches for any land set;
9. Use a body-gripping or other instant kill trap with an open jaw spread exceeding 5 inches for any land set.

**E.** An individual who uses a leghold trap to take wildlife shall use a commercially manufactured padded or rubber-jawed trap, or unpadded with jaws permanently offset to a minimum of 3/16 inch.
1. An anchor chain shall be attached to the trap frame within 1/2 inch of the center of the trap.
2. An anchor chain longer than 12 inches shall be equipped with swivels at each end and at least 1 swivel positioned near the middle of the anchor chain; an anchor chain 12 inches or shorter shall contain at least 2 swivels, 1 at each end.
3. The anchor chain shall be equipped with a shock-absorbing spring requiring less than 40 pounds of force to extend or open the spring.
4. The trap shall be used with a device to allow for pan tension adjustment.

**F.** Every licensed trapper shall file a complete written report as required by A.R.S. § 17-361(D) with the Phoenix Office of the Department by April 1 of each year on a form available from any Department office. A report is required even though no trapping is done.

**G.** Persons suffering from property loss or damage due to wildlife and who take responsive measures as permitted under A.R.S. §§ 17-239 and 17-302 are exempt from this rule. Exemption under this rule does not authorize any form of trapping prohibited by A.R.S. § 17-301.

**H.** All traps shall be plainly identified with the name and address or registered number of the owner as prescribed in A.R.S. § 17-361(B). The name and address or registered number must be legibly marked on a metal tag attached to the trap. A number assigned by the Department is the only acceptable registered number. For the purpose of this rule, "owner" means the person placing, setting, or using the trap.

**I.** Any person applying for a trapping license shall provide the following information on a form available from any Department office:
1. Full name, address, and telephone number;
2. Date of birth and physical description;
3. An identification number assigned by the Department;
4. Category of license: resident, nonresident, or juvenile;
5. Signature of applicant.

**J.** A trapper's registered number shall be issued by the Department and entered upon the trapping license at the time of purchase. Trappers under the age of 14 who are not required to purchase a trapping license shall obtain a registration number from the Department before taking any wildlife with a trap. A trapper's registration number is not transferable.

**K.** The unskinned carcass of any bobcat trapped in Arizona or the pelt of any bobcat trapped in Arizona shall have a validated bobcat transportation tag attached, except for a pelt tagged for sale and exportation as provided for in subsection (L) of this rule.
1. The following information shall be provided on the bobcat transportation tag: current trapping license number,

game management unit where taken, sex of bobcat, and method by which bobcat was taken. Bobcat transportation tags shall be provided by the Department with each trapping license. Additional transportation tags may be obtained by licensed trappers from Department offices at no charge.

2. Bobcat transportation tags shall be validated by the trapper immediately upon taking the bobcat by legibly and completely filling in all information required on the tag.

**L.** Raw pelts of bobcats taken in Arizona that are sold, offered for sale, or exported from the state shall have bobcat permit tags (export tags) locked through the mouth and/or eye openings in a manner such that they cannot be removed without damaging the tag. Bobcat permit tags may be obtained as follows:

1. Bobcat permit tags are available for a fee as provided in R12-4-102 at Department offices and other locations at those times and places as determined and published by the Department.
2. When available, bobcat permit tags shall be issued on a first-come, first-served basis from November 1 through March 10 each year.
3. Department personnel or their authorized agents shall attach and lock bobcat permit tags only to those pelts presented with validated transportation tags. Transportation tags shall be collected by the persons issuing the bobcat permit tags.
4. The March 10 deadline is waived for pelts consigned to licensed taxidermists for tanning or mounting.
5. Bobcat pelts seized under the provisions of A.R.S. § 17-211(D)(4) shall be tagged with bobcat permit tags prior to disposal by the Department. The March 10 deadline is waived for pelts tagged under the provisions of this subsection.

**Historical Note**

Repealed effective May 3, 1976 (Supp. 76-3). New Section R12-4-56 adopted effective September 2, 1977 (Supp. 77-5). Amended effective December 27, 1979 (Supp. 79-6). Former Section R12-4-56 renumbered as Section R12-4-307 without change effective August 13, 1981. New Section R12-4-307 amended effective August 31, 1981 (Supp. 81-4). Amended effective August 4, 1982 (Supp. 82-4). Correction, Former Section R12-4-56 renumbered as Section R12-4-307 without change effective August 13, 1981 should read "effective August 31, 1981". Amended as an emergency effective March 29, 1983 pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 83-2). Amended subsections (B), (C)(6), (7), and (8) and added subsection (I)(5) as a permanent rule effective August 27, 1984 (Supp. 84-4). Amended subsection (C), paragraph (4), subsection (D), subsection (H), paragraph (1), subsection (I), paragraphs (3), (4) and (5) effective September 12, 1986 (Supp. 86-5). Amended effective March 1, 1994; filed in the Office of the Secretary of State November 23, 1993; Exhibit A - "Trapping Report" Form 2050, repealed from Section R12-4-307 (Supp. 93-4). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4). Corrected mislabeled subsection "C" to subsection "D" as per the Commission's request July 22, 1997 (Supp. 97-2). Amended effective February 9, 1998 (Supp. 98-1).

**R12-4-308. Wildlife Inspections, Check Stations, and Roadblocks**

**A.** The Department may establish wildlife check stations to gather biological information and to enforce wildlife laws. The Department shall publish the location, check-in requirements, and check-out requirements for a season with the published Commission order establishing the season.

1. The Department shall ensure that wildlife check stations are located in or near hunting areas.
2. Hunters shall personally check in at a wildlife check station before hunting in a season with a published check-in requirement.
3. The Department shall ensure that wildlife check stations with a published check-in requirement are open continuously from 8 a.m. the day before the season until 8 p.m. the 1st day of the season, and from 8 a.m. to 8 p.m. during each day of the season.
4. Hunters shall personally check out after hunting in a season with a published check-out requirement, and shall present for inspection any wildlife taken, and display any license, tag, or permit required for taking or transporting wildlife.
5. The Department shall ensure that wildlife check stations with a published check-out requirement are open continuously from 8 a.m. to 8 p.m. during each day of the season and shall remain open until 12 noon on the day following the close of the season.

**B.** The Director or Director's designee may establish vehicle roadblocks at specific locations when necessary. Vehicle roadblocks are not the same as wildlife check stations. Officers at vehicle roadblocks shall direct all vehicles at a roadblock to slow or stop. Any occupant of a vehicle at a roadblock shall present for inspection upon request all wildlife in possession, and display any license, tag, stamp, or permit required for taking or transporting wildlife. The Department shall ensure that:

1. The administration and operation of vehicle roadblocks are calculated to cause the least intrusion upon the public's freedom;
2. There is empirical data establishing the purpose and placement of roadblocks at given locations;
3. Roadblocks are for a specified limited duration;
4. There is general public notification of the roadblocks and that motorists at roadblocks are informed of the purpose of the roadblock;
5. There are warnings and signals, illuminated at night, set up to put motorists on notice of approaching a roadblock; and
6. There are explicit written limitations on the officer's conduct at roadblocks.

**C.** The Department shall conduct bighorn sheep, bear, and mountain lion inspections at the Department's Phoenix and regional offices. These offices are open 8 a.m. to 5 p.m., Monday through Friday, except on legal state holidays.

1. All bighorn sheep hunters shall personally check out within 3 days following the close of the season. Each hunter who takes a bighorn sheep shall submit the intact horns and skull for inspection and photographing. The Department representative shall affix a mark or seal to 1 horn of each bighorn sheep lawfully taken pursuant to Commission order. The mark or seal shall not be removed, altered, or obliterated.
2. A successful bear hunter shall report information about the kill to a Department office in person or by telephone within 48 hours of taking a bear. If the kill is reported by telephone, the report shall include the name of the hunter, the hunter's hunting license number, the sex of the bear taken, the management unit where the bear was taken, and a telephone number at which the hunter can be reached to obtain additional information. In addition, the

hunter shall provide a tooth from the bear to the Phoenix office within 20 days after contacting the Department.

3. A successful mountain lion hunter shall report information about the kill to a Department office in person or by telephone within 10 days of taking the mountain lion.

**D.** This Section shall not limit the game ranger and wildlife manager's authority to conduct stops, searches, and inspections pursuant to A.R.S. §§ 17-211(D) and 17-331, or to establish voluntary wildlife survey stations to gather biological information.

**Historical Note**

Amended effective June 29, 1978 (Supp. 78-3). Former Section R12-4-57 renumbered as Section R12-4-308 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-308 repealed, new Section R12-4-308 adopted effective May 12, 1982 (Supp. 82-3). Amended subsections (B), (D), and (F), and added subsection (G) effective July 3, 1984 (Supp. 84-4). Former Section R12-4-308 repealed, new Section R12-4-308 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-308 repealed, new Section R12-4-308 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective July 12, 1996 (Supp. 96-3). Amended effective November 10, 1997 (Supp. 97-4).

**R12-4-309. Restricted Hunts**

**A.** With the exceptions listed in subsection (C) of this rule, hunt areas established by Commission order for the following seasons are closed to hunting by all persons not possessing the valid big game tag required for that season:

1. All elk seasons within the following units as described in R12-4-108:
   Unit 1.
   Unit 2B.
   Unit 2C.
   Unit 3A.
   Unit 3B.
   Unit 3C.
   Unit 4A.
   Unit 4B.
   Unit 5A.
   Unit 5B.
   Unit 6A.
   Unit 6B.
   Unit 7.
   Unit 8.
   Unit 9.
   Unit 10.
   Unit 22, except the portion in the Mazatzal Mountains.
   Unit 23, except the portion in the Sierra Ancha Mountains.
   Unit 27, except the portion lying south of the line beginning at the New Mexico state line and Blue River, southwesterly along Blue River to its juncture with Strayhorse and Bear Canyon Trails, southwesterly on Strayhorse and Bear Canyon Trails to Forest Road 217, north on Forest Road 217 to the San Carlos Indian Reservation.
2. All general javelina seasons in all units.

**B.** Persons taking elk or javelina according to subsection (A) may take other wildlife in season before killing their permitted elk or javelina, according to the restrictions in R12-4-318.

**C.** Following are the exceptions to subsection (A):

1. Archery-only elk hunters may continue to hunt other wildlife in season with bow and arrow after killing their permitted elk;
2. Persons holding special big game license tags issued pursuant to R12-4-120, or hunt permit-tags valid for deer, antelope, buffalo, or bighorn sheep may take their lawful big game during an open season running concurrently with any season named in subsection (A);
3. Licensed hunters may take small game, nongame animals, predators and furbearers in season by the following methods, when lawful for the species pursuant to R12-4-304 or R12-4-318:
   a. Shotgun shooting shot;
   b. .22 rimfire rifle;
   c. Rimfire pistol;
   d. Pneumatic rifle;
   e. Slingshot;
   f. Falconry;
   g. Trap;
   h. Net;
   i. Hand-propelled projectile;
   j. Capture by hand.
4. Trappers licensed under R12-4-307 may trap in these areas.

**D.** This rule is effective January 1, 1999.

**Historical Note**

Amended effective May 21, 1975 (Supp. 75-1). Amended effective May 3, 1976 (Supp. 76-3). Amended effective March 7, 1979 (Supp. 79-2). Former Section R12-4-58 renumbered as Section R12-4-309 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-309 repealed, new Section R12-4-309 adopted effective May 12, 1982 (Supp. 82-3). Amended subsection (A) effective July 3, 1984 (Supp. 84-4). Former Section R12-4-309 repealed, new Section R12-4-309 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-309 repealed, new Section R12-4-309 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective January 1, 1997; filed with the Office of the Secretary of State November 7, 1996 (Supp. 96-4). Amended effective January 1, 1999; filed with the Office of the Secretary of State December 4, 1998 (Supp. 98-4).

**R12-4-310. Fishing Permits**

**A.** The Department may issue a Fishing Permit to state, county, or municipal agencies or departments and to nonprofit organizations licensed by or contracted to the Department of Economic Security or Department of Health Services, whose primary purpose is to provide physical or mental rehabilitation or training for persons with physical, developmental, or mental disabilities. The permit will allow persons with physical, developmental, or mental disabilities to fish without a fishing license. The permit will authorize this activity for up to 20 persons for the 2 days specified on the permit upon any public waters except that fishing in the waters of the Colorado River is restricted to fishing from the Arizona shoreline only, unless the persons fishing under the authority of the permit also possess a valid Colorado River stamp from the adjacent state. The persons fishing under the authority of the permit shall comply with other statutes, Commission orders, and rules not contained in this Section.

**B.** An applicant for a Fishing Permit shall provide the following to the Department:
1. A completed application form obtained from the Department, containing:
   a. The name, address, and telephone number of the agency, department, or nonprofit organization requesting the permit;
   b. The name, position title, and telephone number of the person who will be responsible for supervising the persons who will be fishing under the authority of the permit;
   c. The total number of persons who will be fishing under the authority of the permit;
   d. The dates of the 2 days for which the permit will be valid;
   e. The location for which the permit will be valid.
2. Nonprofit organizations shall also submit documentation that they are licensed by or contracted to the Department of Economic Security or the Department of Health Services for the purpose of providing rehabilitation or treatment services to individuals and groups possessing physical, developmental, or mental disabilities.

**C.** The Department shall issue the approved Fishing Permit to the applicant within 30 calendar days of receiving an application meeting the criteria of this Section.

**D.** The Fishing Permit permittee shall provide 1 hour of instruction on fish identification, fishing ethics, safety, and techniques to the persons who will be fishing under authority of the permit. The lesson plan for this instruction will be provided to the permittee by the Department.

**E.** Each person fishing without a license under the authority of the Fishing Permit may take only 1/2 the regular bag limit established by Commission order for any species, unless the regular bag limit is 1, in which case the permit authorizes the regular limit.

**F.** The permittee shall submit a report to the Department not later than 30 days after the end of the authorized fishing dates. The Department may deny issuance of future Fishing Permits to permittees failing to submit the report. The permittee shall report on a form available from the Department:
1. The Fishing Permit number and the information contained in the permit;
2. The total number of persons who fished and total hours fished;
3. The total number of fish caught, kept and released, by species.

**Historical Note**

Adopted effective October 9, 1980 (Supp. 80-5). Former Section R12-4-59 renumbered as Section R12-4-310 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-310 renumbered as R12-4-217 and amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-310 renumbered as R12-4-217 and amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). New Section adopted November 7, 1996 (Supp. 96-4).

**R12-4-311. Exemptions from requirement to possess an Arizona fishing license while taking aquatic wildlife**

**A.** A fishing license is not required to take aquatic wildlife from private waters which are not open to the public and which are not managed by the Department.

**B.** A fishing license is not required to take terrestrial mollusks or crustaceans from private property.

**C.** Any person fishing in Arizona on the Saturday during the week proclaimed by the President of the United States as National Fishing Week may fish without an Arizona fishing license, provided their privilege to take aquatic wildlife has not been revoked by the Commission. The rule applies to all waters except the Colorado River adjacent to California and Nevada, where fishing without a license is limited to the shoreline, unless the state with concurrent jurisdiction removes licensing requirements on the same day.

**D.** Persons participating in an introductory fishing clinic organized, sanctioned and sponsored by the Department may fish without a fishing license while accompanied by an authorized Department instructor.

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective May 3, 1976 (Supp. 76-3). Amended effective May 26, 1978 (Supp. 78-3). Amended effective May 31, 1979. Amended effective June 4, 1979 (Supp. 79-3). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-60 renumbered as Section R12-4-311 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (A), (B), and (D) and added subsections (F) and (G) effective December 17, 1981 (Supp. 81-6). Amended as an emergency effective May 12, 1982, pursuant to A.R.S. § 41-1003, valid for 90 days (Supp. 82-3). Emergency certification expired. Amended subsections (A) through (E) effective December 7, 1982 (Supp. 82-6). Amended subsections (C) and (D) effective February 9, 1984 (Supp. 84-1). Amended effective December 13, 1985 (Supp. 85-6). Amended subsections (A) and (D) effective December 16, 1986 (Supp. 86-6). Former Section R12-4-311 repealed, new Section R12-4-311 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-322 repealed, new Section R12-4-311 adopted effective January 1, 1989, filed effective December 30, 1988" (Supp. 89-2).

**R12-4-312. Special use permits and stamps for fishing on waters with shared jurisdiction**

**A.** Any person fishing from a boat or other floating device on the waters of Lake Mead, Lake Mohave, or the Colorado River forming the mutual boundary between Arizona and Nevada, shall have in possession one of the following:
1. A valid Nevada-Colorado River special use stamp affixed to a valid Arizona fishing license, or
2. A valid Arizona-Colorado River special use stamp affixed to a valid Nevada fishing license.

**B.** Any person fishing from the Arizona shorelines of the waters named in subsection (A) shall have in possession either:
1. A valid Arizona fishing license, unless exempted pursuant to A.R.S. § 17-335; or
2. A valid Arizona-Colorado River special use stamp affixed to a valid Nevada fishing license.

**C.** Any person fishing in the waters of Mittry Lake or Topock Marsh shall have in possession either:
1. A valid Arizona fishing license, unless exempted pursuant to A.R.S. § 17-335; or
2. A valid Arizona-Colorado River special use permit stamp affixed to a valid California fishing license.

**D.** Any person fishing in the Arizona portion of Lake Powell shall have in possession either:
1. A valid Arizona fishing license, unless exempted pursuant to A.R.S. § 17-335; or

2. A valid Arizona-Lake Powell stamp affixed to a valid Utah resident fishing license.

**E.** The requirements of this rule are in addition to those contained in A.R.S. §§ 17-342, 17-343, and 17-344.

**Historical Note**

Amended effective June 4, 1979 (Supp. 79-3). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-61 renumbered as Section R12-4-312 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (B), (E) and (F) effective December 17, 1981 (Supp. 81-6). Amended subsections (A), (C), (D), (E), and added subsection (G) effective December 9, 1982 (Supp. 82-6). Amended subsection (A), paragraph (1) effective November 27, 1984 (Supp. 84-6). Amended effective December 13, 1985 (Supp. 85-6). Former Section R12-4-312 repealed, new Section R12-4-312 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-312 repealed, new Section R12-4-312 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2).

**R12-4-313. Lawful Methods of Taking Aquatic Wildlife; Restrictions**

**A.** Aquatic wildlife may be taken day or night. Artificial light may be used.

**B.** Fish may be taken by the following methods:

1. All fish may be taken by angling as defined in A.R.S. § 17-101 or simultaneous fishing as defined in R12-4-101 with any bait or artificial lures or flies, subject to the following restrictions:
   a. No species of fish shall be used as live bait, or possessed for use as live bait, at, in, or upon any waters unless that species is specified as a "live baitfish" for those waters by Commission order. Live baitfish shall not be transported from the waters where taken except as allowed in R12-4-316.
   b. The flesh of game fish, except sunfish of the genus Lepomis, shall not be used as bait.
   c. Waterdogs shall not be used as live bait in that portion of Santa Cruz County lying east and south of State Highway 82 or that portion of Cochise County lying west of the San Pedro River and south of State Highway 82.
   d. Fish may only be taken by artificial lures and flies, as defined in R12-4-101, in waters designated by Commission order as "artificial lures and flies only"; waters so designated may be further restricted to the use of barbless hooks, meaning any fishhook manufactured without barbs or on which barbs have been completely closed or filed off.
2. In addition to angling, the following fish may also be taken by these methods:
   a. Carp (*Cyprinus carpio*), buffalofish, mullet, tilapia, and suckers, except razorback suckers (*Xyrauchen texanus*), may also be taken by bow and arrow, crossbow, snare, gig, spear, spear gun, and snagging. Snagging shall only be allowed in areas designated by Commission order. None of these methods shall be practiced within 200 yards of any boat dock or designated swimming area.
   b. Live baitfish may also be taken for personal use as bait by:
      i. A cast net not to exceed a radius of three feet measured from the horn to the leadline;
      ii. A minnow trap, as defined in R12-4-101;
      iii A seine not to exceed ten feet in length and four feet in depth;
      iv. Dip net.
   c. Striped bass may also be taken by spear or spear gun, only in those waters designated by Commission order.

**C.** In those waters designated by Commission order, trout shall be killed and retained as part of the bag limit or immediately released. No further fishing is allowed after the legal bag limit of trout has been killed.

**D.** The Commission may, by order, designate a special season when fish may also be taken by hand, or by any hand-held, nonmotorized implement which does not discharge a projectile. Such special season may apply to any waters where a fish die-off is imminent due to poor or low water conditions, or as a result of Department fish renovation procedures.

**E.** Waterdogs and other amphibians, soft-shelled turtles, mollusks, and crustaceans may be taken with minnow trap or crayfish net or by angling, by hand or with any hand-held, nonmotorized implement which does not discharge a projectile. Bullfrogs may also be taken by bow and arrow, crossbow and slingshot.

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective May 17, 1977 (Supp. 77-3). Amended effective June 29, 1978 (Supp. 78-3). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-62 renumbered as Section R12-4-313 without change effective August 13, 1981 (Supp. 81-4). Amended effective December 7, 1982 (Supp. 82-6). Amended subsection (A)(7) and added subsection (E)(3) effective November 27, 1984 (Supp. 84-6). Amended subsections (A) and (E) effective December 9, 1985 (Supp. 85-6). Amended subsections (A) and(E). effective December 16, 1986 (Supp. 86-6). Former Section R12-4-313 repealed, new Section R12-4-313 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-313 repealed, new Section R12-4-313 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective October 14, 1993 (Supp. 93-4).

**R12-4-314. Possession, Sale, Transportation, and Importation of the Carcasses and Parts of Aquatic Wildlife**

**A.** The carcasses or parts of aquatic wildlife that have been lawfully taken in another state or country may be imported into Arizona when accompanied by any license or permit required by the state or country of jurisdiction, and where transported and exported in accordance with the laws of the state or country of origin.

**B.** The carcasses of all freshwater fish possessed or transported which have been taken within Arizona shall have the head or tail or skin attached so that the species can be identified, numbers counted, and any required length determined.

**C.** The carcasses of carp (*Cyprinus carpio*) and buffalofish (*Ictiobus* spp.) taken pursuant to Commission order may be sold.

**D.** This rule is effective January 1, 1993.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-63 renumbered as Section R12-4-314 without change effective August 13, 1981 (Supp. 81-4). Amended subsection (B) effective December 31, 1984 (Supp. 84-6). Amended effective December 30, 1988 (Supp. 88-4).

Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4).

**R12-4-315. Possession of live fish; unattended live boxes and stringers**

**A.** Fish taken pursuant to R12-4-313 may be possessed alive on the waters where taken except when expressly prohibited by provisions within R12-4-313 but shall not be transported alive from the waters where taken except as allowed in R12-4-316.

**B.** All unattended live boxes or stringers holding fish shall have attached water resistant identification legibly bearing the name, address, and fishing license number of each person using and holding fish in such live box or stringer.

**Historical Note**

Former Section R12-4-64 renumbered as Section R12-4-315 without change effective August 13, 1981 (Supp. 81-4). Amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2).

**R12-4-316. Possession, transportation, and importation of live baitfish, crayfish, and waterdogs**

**A.** Live baitfish, crayfish, and waterdogs may be possessed alive for use as live bait only in accordance with the restrictions of this Rule and R12-4-313.

**B.** The following live baitfish may be possessed and transported alive for personal use as live bait. Persons possessing a valid Arizona fishing license may import these live baitfish from California and Nevada without accompanying documentation certifying the fish are free of disease, or they may import these live baitfish from any other state if they have in possession certification that the fish are free of Furunculosis.

1. Fathead minnow, (Pimephales promelas);
2. Mosquitofish, (Gambusia affinis);
3. Red shiner, (Notropsis lutrensis);
4. Threadfin shad, (Dorosoma petenense);
5. Golden shiners (Notemigonus crysoleucas);
6. Goldfish (Carassius auratus).

**C.** Persons possessing a valid Arizona fishing license may import, transport and possess live waterdogs for personal use as bait, except in that portion of Santa Cruz County lying east and south of State Highway 82 or that portion of Cochise County lying west of the San Pedro River and south of State Highway 82.

**D.** Persons possessing a valid Arizona fishing license may import, transport and possess live crayfish for personal use as live bait.

**Historical Note**

Amended effective May 3, 1976 (Supp. 76-3). Amended effective June 4, 1979 (Supp. 79-3). Amended subsections (A), (B), (C), and (D) effective December 29, 1980 (Supp. 80-6). Former Section R12-4-65 renumbered as Section R12-4-316 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (B), (C) and (F) effective February 9, 1984 (Supp. 84-1). Amended effective December 31, 1984 (Supp. 84-6). Former Section R12-4-316 repealed, new Section R12-4-316 adopted effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Former Section R12-4-316 repealed, new Section R12-4-316 adopted effective January 1, 1989, filed December 30, 1988" (Supp. 89-2).

**R12-4-317. Repealed**

**Historical Note**

Renumbered, then repealed and readopted as Section R12-4-43 effective February 20, 1981 (Supp. 81-1). Former Section R12-4-66 renumbered as Section R12-4-317 without change effective August 13, 1981 (Supp. 81-4). Correction, Section R12-4-317 formerly shown as repealed should have read reserved. Former Historical Note erroneous, see R12-4-202. Section R12-4-317 adopted effective June 20, 1984 (Supp. 84-3). Repealed effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Repealed effective January 1, 1989, filed December 30, 1988" (Supp. 89-2).

**R12-4-318. Seasons**

**A.** Methods of lawfully taking wild mammals and birds during seasons designated by Commission order as "general" seasons are designated in R12-4-304. Restrictions designated in subsection (C) do not apply to general seasons.

**B.** Methods of lawfully taking big game during seasons designated by Commission order as "special" are designated in R12-4-304. "Special" seasons are open only to individuals in possession of special big game license tags issued pursuant to A.R.S. § 17-346 and R12-4-120.

**C.** Other seasons designated by Commission order have specific requirements and lawful methods of take more restrictive than those for general and special seasons, as prescribed in this Section. While taking wildlife:

1. An individual participating in a "muzzleloader" season shall not use or possess any firearm other than a muzzle-loading rifle or a muzzle-loading handgun, as defined in R12-4-101.
2. An individual participating in an "archery-only" season shall use and possess only a bow and arrow as prescribed in R12-4-304, and shall not use or possess any other weapon, including a crossbow or any other bow having devices attached to hold the bow in a drawn position, except as authorized by R12-4-216.
3. An individual participating in a "handguns, archery, and muzzleloader (HAM)" season may only use or possess any or all of the following: a handgun (as prescribed in R12-4-304), muzzle-loading rifle (as defined in R12-4-101), crossbow (as prescribed in R12-4-304), and bow and arrow (as prescribed in R12-4-304).
4. The use of dogs is prohibited during spring bear seasons.
5. An individual participating in a "bear-baiting" season shall have in possession the required hunt permit-tag and may use and possess any weapon lawful for taking bear as prescribed in R12-4-304, except that an individual participating in an "archery-only" season which runs concurrently with a "bear-baiting" season shall comply with subsection (C)(2) of this Section. An individual participating in "bear-baiting" season may use bait in taking bear, but shall:
   a. Ensure that bait is biodegradable animal or vegetable matter contained within a single metal container not exceeding 10 gallons in volume;
   b. Place no more than 5 bait containers, each clearly marked with the hunter's hunt permit-tag number;
   c. Establish bait locations on or after August 15;
   d. Remove bait containers and their contents when no longer in use, and no later than the day following the close of the season authorized for baiting.
6. An individual participating in a "pursuit-only" season may use dogs to pursue bears, lions, or raccoons as designated by Commission order, but shall not kill or capture

the quarry. An individual participating in a "pursuit-only" season shall have in possession any required tag for taking the animal pursued, even though there shall be no kill.

7. An individual participating in a "limited weapon" season may only use or possess the following, when prescribed in R12-4-304 as lawful for the species hunted: bow and arrow; crossbow; pneumatic weapons; falconry; slingshots; any trap except foot-hold steel traps; nets; hand-propelled projectiles; or capture by hand.
8. An individual participating in a "limited weapon-shotgun" season may only use or possess the following, when prescribed in R12-4-304 as lawful for the species hunted: shotgun shooting shot or slug; bow and arrow; crossbow; pneumatic weapons; falconry; slingshots; any trap except foot-hold steel traps; nets; hand-propelled projectiles; or capture by hand.
9. An individual participating in a "limited weapon-shotgun shooting shot" season may only use the following, when prescribed in R12-4-304 as lawful for the species hunted: shotgun shooting shot, bow and arrow, crossbow, pneumatic weapons, falconry, slingshots, any trap except foot-hold steel traps, nets, hand-propelled projectiles, or capture by hand.
10. An individual participating in a "limited weapon-rimfire" season may only use or possess the following, when prescribed in R12-4-304 as lawful for the species hunted: rifled firearms using rimfire cartridges; shotgun shooting shot or slug; bow and arrow; crossbow; pneumatic weapons; falconry; slingshots; any trap except foot-hold steel traps; nets; hand-propelled projectiles; or capture by hand.
11. An individual participating in a "falconry-only" season shall be a falconer either licensed pursuant to R12-4-422 or exempted pursuant to R12-4-407, and shall use no method of take except falconry.
12. An individual may participate in a "juniors-only hunt" up to and throughout the calendar year of their 15th birthday, provided they meet the requirements of A.R.S. § 17-335.
13. An individual participating in a "CHAMP" season shall be a challenged hunter access/mobility permittee pursuant to R12-4-217.

**D.** This rule is effective January 1, 1998.

**Historical Note**

Adopted effective June 4, 1987 (Supp. 87-2). Amended effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Amended effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4). Amended effective January 1, 1997; filed in the Office of the Secretary of State July 12, 1996 (Supp. 96-3). Amended effective January 1, 1998; filed in the Office of the Secretary of State November 10, 1997 (Supp. 97-4).

**R12-4-319. Emergency expired**

**Historical Note**

Amended effective May 21, 1975 (Supp. 75-1). Amended effective May 3, 1976 (Supp. 76-3). Amended effective June 12, 1979 (Supp. 79-3). Amended effective April 22, 1980 (Supp. 80-2). Former Section R12-4-68 renumbered as Section R12-4-319 without change effective August 13, 1981 (Supp. 81-4). Repealed effective April 28, 1989 (Supp. 89-2). New Section R12-4-319 adopted an as emergency effective October 18, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-4). Emergency expired.

## ARTICLE 4. LIVE WILDLIFE

**R12-4-401. Live Wildlife Definitions**

In addition to definitions given in A.R.S. § 17-101, and for the purposes of Article 4, the following definitions apply.

1. "Aquarium trade" means the commercial industry lawfully trading in aquatic wildlife which is not restricted live wildlife, and the customers of that industry, when all aquatic wildlife is held for pet or ornamental uses only, in aquaria or in enclosed ponds with no opportunity for ingress or egress.
2. "Captive wildlife" means live wildlife physically restrained, confined, or impaired so that it is prevented from unobstructed return to or movement in the wild.
3. "Circus" means a scheduled event where a variety of entertainment is the principal business, primary purpose and attraction. "Circus" does not include animal displays or exhibits held as an attraction for a secondary commercial endeavor.
4. "Collect" means to take under the provisions of a Scientific Collecting Permit.
5. "Educational display" means to display captive live wildlife to increase public understanding of wildlife biology, conservation and management without requiring payment from the audience.
6. "Endangered or threatened" means wildlife listed in 50 CFR 17.11, revised as of April 10, 1987, not including any later amendments or editions of this list, which is incorporated by reference herein. A copy of the list is on file with the Secretary of State and is available for inspection at any Department office, or it may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
7. "Evidence of lawful possession" means any license or permit allowing possession of the specified live wildlife, or other documentation establishing lawful possession, including but not limited to: a statement of nonrequirement for a license or permit for the specified live wildlife, granted by the country or state of origin.
8. "Exhibit" means to display captive live wildlife in public, or to allow photography of captive live wildlife, for any commercial purpose.
9. "Fish farm" means a commercial operation designed and operated for propagating, rearing or selling aquatic wildlife for any purpose except the aquarium trade.
10. "Live baitfish" means any species of live freshwater fish designated by Commission order as lawful for use in taking aquatic wildlife pursuant to R12-4-313.
11. "Live bait" means live aquatic wildlife used or intended for use in taking aquatic wildlife.
12. "Propagate" means the generation of offspring from captive wildlife.
13. "Rehabilitated wildlife" means injured, orphaned, sick or otherwise debilitated wildlife which is provided care to restore it to a healthy condition suitable for release to the wild or for lawful captive use.
14. "Restricted live wildlife" means that wildlife which has been determined by the Commission to be an actual or potentially significant threat to indigenous wildlife by competition, disease or parasites, habitat degradation, predation, or impact on population management; or an

actual or potentially significant threat to public safety by disease, physical threat, property damage or nuisance. "Restricted live wildlife" is listed in R12-4-406 and a special license or an exemption pursuant to Article 4, or compliance with R12-4-404 in the case of wildlife taken alive from the wild, is required in order to possess such wildlife or engage in any activity prohibited by A.R.S. § 17-306 or R12-4-402.

15. "Shooting preserve" means any operation where live wildlife is released for the purpose of being hunted.
16. "Special license" means any permit or license issued pursuant to A.A.C. Title 12, Chapter 4, Article 4, authorizing specific activities normally prohibited by A.R.S. § 17-306 and R12-4-402.
17. "Stock" and "stocking" mean to release live aquatic wildlife into public or private waters other than the waters where taken.
18. "Threatened native wildlife" means any species listed in "Threatened Native Wildlife in Arizona", published by the Arizona Game and Fish Department, revised 1988, not including any later amendment or editions of this list, which is incorporated by reference herein. A copy of the list is on file with the Office of the Secretary of State and is available from any Department office.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-402. Live wildlife: prohibited acts**
In addition to those prohibitions in A.R.S. § 17-306, no person shall give away, rent or lease, purchase, exhibit or display for any purpose, offer for sale, sell as live bait, propagate, stock, or export any live wildlife or kill any captive wildlife, or operate a shooting preserve, except as authorized by this Chapter.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-403. Escaped or released live wildlife**
The Department may take any live wildlife which has been released or which has escaped, whether or not such wildlife was held pursuant to a special license, when the wildlife is posing an actual or potential threat to native wildlife or to the safety, health, or welfare of the public.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-404. Possession of Live Wildlife Taken on an Arizona Hunting or Fishing License**

**A.** Wildlife may be taken from the wild alive by authority of an appropriate Arizona hunting or fishing license only when a Commission order specifies a live bag and possession limit for that species. Wildlife taken pursuant to this subsection may be possessed, transported, placed on educational display, propagated, and killed for personal use, or disposed of pursuant to subsection (B), except that live baitfish may be possessed and transported only in accordance with R12-4-316.

**B.** Wildlife and the progeny of wildlife possessed pursuant to this rule may only be disposed of by gift or as directed by the Department, except that wildlife not removed from the area where captured may be released. Lawfully possessed live wildlife may be exported.

**C.** A combined total of wildlife and the progeny of wildlife possessed pursuant to this rule shall not exceed the possession limit established by the current Commission order governing that species, except that the progeny of reptiles and amphibians may be held in captivity in excess of the possession limit for 12 months from the date of birth or hatching. Before or upon reaching 12 months of age, progeny of reptiles and amphibians in excess of the possession limit shall be disposed of by gift or as directed by the Department.

**D.** This rule is effective January 1, 1995.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-405. Importing, Purchasing, and Transporting Live Wildlife Without an Arizona License or Permit**

**A.** Lawfully possessed mammals, birds, and reptiles not listed in R12-4-406 may be imported without any license or permit from the Department.

**B.** Lawfully possessed aquatic wildlife not listed in R12-4-406 may be imported without any license or permit from the Department, when it is intended for the aquarium trade as defined in R12-4-401, or for restaurants or markets licensed to sell food to the public where the aquatic wildlife is killed before transport from the restaurant or market. Aquatic wildlife being transported through the state shall be accompanied by authority to transport live aquatic wildlife granted by another state. Aquatic wildlife imported for any other purpose requires a special license or exemption granted pursuant to this Chapter. The aquarium trade may purchase live aquatic wildlife not listed in R12-4-406 from licensed fish farms.

**C.** Wildlife lawfully imported without an Arizona license or permit, and their progeny, may be purchased, possessed, exhibited or displayed for any purpose, transported, propagated, traded, rented or leased, given away, sold, offered for sale, exported, and killed.

**D.** This rule is effective January 1, 1995.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-406. Restricted Live Wildlife**

**A.** Mammals listed below are "restricted live wildlife" as defined in R12-4-401. The taxonomic classification from Volumes I and II of Walker's Mammals of the World, Fifth Edition, 1991, and not including any later edition, shall be the authority in the following designations; a copy is on file with the Office of the Secretary of State and is available for inspection at any Department office.

1. All species of the genus *Didelphis*. Common name: American opossums.
2. All species of the order Insectivora. Common names: Insectivores or shrews and moles.
3. All species of the order Chiroptera. Common name: bats.
4. All species of the family *Pongidae* of the order Primates. Common names: orangutans, chimpanzees, gorillas.
5. All species of the order Edentata. Common names: edentates; or sloths, anteaters, armadillos.
6. All species of the order Lagomorpha. Common names: pikas, rabbits, hares. Genus *Oryctolagus*, containing domestic rabbits, is not wildlife.
7. All species of the following families of the order Rodentia. Common name: rodents.
   a. The family Sciuridae. Common names: squirrels, chipmunks, marmots, woodchucks and prairie dogs.
   b. The family Geomyidae. Common name: pocket gophers.
   c. The family Castoridae. Common name: beavers.

d. The family Erethizontidae. Common name: New World porcupines.
e. The family Capromyidae. Common names: hutias, coypus or nutrias.

8. All species of the order Carnivora. Common name: carnivores. *Canis familiaris*, domestic dogs; *Felis catus*, domestic cats; and *Mustela putorius furo*, domestic ferrets, are not wildlife.
9. All species of the following families of the order Artiodactyla. Common name: even-toed ungulates.
   a. The family Tayassuidae. Common name: peccaries.
   b. The following genera of family Cervidae:
      i. The genus *Alces*. Common name: moose.
      ii. The genus *Odocoileus*. Common name: white-tailed and mule deer.
      iii. The genus *Cervus*. Common name: red deer and wapiti, except that the species *Cervus nippon*, Nippon deer, is not restricted.
   c. The family Antilocapridae. Common name: pronghorn.
   d. The family Bovidae. Common names: cattle; buffalo, bison, oxen, duikers, antelopes, gazelles, goats, sheep; except that the following are not restricted:
      i. The genus *Bubalus*. Common name: water buffalo.
      ii. The genus *Bison*. Common name: bison; American bison or buffalo.
      iii. *Capra hircus*, domestic goats; *Ovis aries*, domestic sheep; and *Bos taurus*, domestic cattle, are not wildlife.

**B**. Birds listed below are "restricted live wildlife" as defined in R12-4-401.
1. The following species within the family Phasianidae. Common names: partridges, grouse, turkeys, quail, and pheasants.
   a. *Alectoris chukar*. Common name: chukar.
   b. *Callipepla californica*. Common name: California, or valley quail.
   c. C*allipepla gambelii*. Common name: Gambel's quail.
   d. *Callipepla squamata*. Common name: scaled quail.
   e. *Colinus virginianus*. Common name: northern bobwhite. Restricted only in Units 34A, 36A, 36B, and 36C as prescribed in R12-4-108.
   f. *Cyrtonyx montezumae*. Common name: Montezuma or Mearn's quail.
   g. *Dendragapus obscurus*. Common name: blue grouse.
   h. *Phasianus colchicus*. Common names: ringneck and whitewing pheasants.
2. The species *Rhynchopsitta pachyrhyncha*. Common name: thick-billed parrot.

**C.** Reptiles listed below are "restricted live wildlife" as defined in R12-4-401.
1. All species of the order Crocodylia. Common names: gavials, caimans, crocodiles, alligators.
2. The following species of the order Testudines. Common names: turtles, tortoises.
   a. All species of the family Chelydridae. Common name: snapping turtles.
   b. All species of the genera *Gopherus* and *Xerobates* of the family Testudinidae. Common name: gopher tortoises, including the desert tortoise.
3. All species of the following families or genera of the order Squamata.
   a. The family Helodermatidae. Common names: Gila monster, Mexican beaded lizard.
   b. The family Elapidae. Common names: cobras, mambas, coral snakes, kraits, Australian elapids.
   c. The family Hydrophiidae. Common name: sea snakes.
   d. The family Viperidae. Common names: true vipers and pit vipers, including rattlesnakes.
   e. The family Atractaspidae. Common name: burrowing asps.
   f. The following species and genera of the family Colubridae:
      i. *Dispholidus typus*. Common name: boomslang.
      ii. *Thelotornis kirtlandii*. Common name: bird snake or twig snake.
      iii. *Rhabdophis*. Common names: keelbacks.

**D.** Amphibians listed below are "restricted live wildlife" as defined in R12-4-401.
1. The following species within the order Anura. Common names: frogs and toads.
   a. All species of the genus *Xenopus*. Common name: clawed frogs.
   b. The species *Bufo horribilis, Bufo marinus, Bufo paracnemis.* Common names: giant or marine toads.

**E.** Fish listed below are "restricted live wildlife" as defined in R12-4-401.
1. American grayling, the species *Thymallus arctius.*
2. Bass, all species of the family Serranidae.
3. Bighead carp, the species *Aristichthys nobilis.*
4. Bony tongue, the species Arapaima gigas.
5. Bowfin, the species Amia calva.
6. Catfish, all species of the family Ictaluridae.
7. Crucian carp, the species *Carassius carassius.*
8. Electric catfish, the species Malapterurus electricus.
9. Electric eel, the species Electrophorus electricus.
10. European whitefish or ide, the species Leuciscus idus and Idus idus.
11. Freshwater drum, the species Aplodinotus grunniens.
12. Freshwater stingray, all species of the family Potamotrygonidae.
13. Gars, all species of the family Lepisosteidae.
14. Goldeye, all species of the family Hiodontidae.
15. Herring, all species of the family Clupeidae.
16. Indian carp, all of the species *Catla catla, Cirrhina mrigala,* and *Labeo rohita.*
17. Lampreys, all species of the family Petromyzontidae.
18. Mooneye, all species of the family Hiodontidae.
19. Nile perch, all species of the genus *Lates.*
20. Pike, all species of the family Esocidae.
21. Pike topminnow, the species *Belonesox belizanus.*
22. Piranha, all species of the genera Serrasalmus, Serrasalmo, Phygocentrus, Teddyella, Rooseveltiella, and Pygopristis.
23. Shad, all species of the family Clupeidae except threadfin shad, species Dorosoma petenense.
24. Sharks, all species, both marine and freshwater, of the orders Hexanchiformes, Heterodontiformes, Squaliformes, Pristiophoriformes, Squatiniformes, Orectolobiformes, Lamniformes, and Carcharhiniformes.
25. Silver carp, the species *Hypophthalmichthys molitrix.*
26. Snakehead, all species of the family Ophicephalidae.
27. South American parasitic catfish, all species of the family Trichomycteridae and Cetopsidae.
28. Sunfish, all species of the family Centrarchidae.
29. Tetras, all species of the genus *Astyanyx.*
30. Tiger fish, the species Hoplias malabaricus.

31. Trout, all species of the family Salmonidae.
32. White amur, the species *Ctenopharyngodon idellus.*
33. Walking catfish, all species of the family Clariidae.
34. Walleye, the species *Stizostedion vitreum.*
35. White perch, the species Morone americanus.
36. Yellow perch, the species Perca flavescens.
37. Rudd, the species Scardinius erythrophthalmus.

**F.** Crustaceans listed below are "restricted live wildlife" as defined in R12-4-401.
1. Asiatic mitten crab, the species *Eriocheir sinensis.*
2. Australian crayfish, all species of the family Parastacidae.

**G.** Mollusks listed below are "restricted live wildlife" as defined in R12-4-401.

Zebra mussel, the species *Dreissena plymorpha.*

**H.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-407. Exemptions from Special License Requirements for Restricted Live Wildlife**

**A.** The Commission waives requirements to obtain a special license for lawfully possessed restricted live wildlife under the following conditions.
1. Desert tortoises *Xerobates (Gopherus) agassizii* possessed without a special license prior to April 28, 1989, may be possessed, transported, and given away. Desert tortoises possessed pursuant to this rule may be propagated, and progeny may be held in captivity for 24 months from the date of hatching, when they shall be disposed of by gift or as directed by the Department. The person receiving a desert tortoise given away pursuant to this rule is also exempt from special license requirements.
2. A licensed veterinarian may possess the wildlife while furnishing medical care, and may release rehabilitated wildlife as directed by the Department, provided:
   a. Records of restricted live wildlife which are kept pursuant to the requirements of the Veterinary Medical Examining Board shall be subject to inspection by Department game rangers.
   b. No financial responsibility shall be assumed by the Commission or the Department for any care provided, except when authorized by the Department.
3. The wildlife may be imported, possessed, and exported when being transported through the state within a period of 72 continuous hours when it is accomplished by one person without transfer or sale and when it is accompanied by evidence of lawful possession as defined in R12-4-401.
4. The wildlife may be imported, transported, possessed, exhibited, and exported for a government-authorized state or county fair, or by a circus, or imported, possessed, transported and exported for the purpose of filming for television, movies, or commercials, provided the wildlife:
   a. Is accompanied by evidence of lawful possession, as defined in R12-4-401;
   b. Shall not be in the state for more than 60 days;
   c. Shall be maintained under complete control and prohibited from public contact.
5. The wildlife may be imported, transported, possessed, and displayed for advertising purposes other than filming, and exported, provided it:
   a. Is accompanied by evidence of lawful possession, as defined in R12-4-401;
   b. Shall not be in the state for more than 10 days, and no fee to view the wildlife shall be charged to the public;
   c. Shall be maintained under complete control and prohibited from public contact.
6. Game fish may be imported and transported to restaurants or markets licensed to sell food to the public, provided that the game fish being sold are killed before transport from the restaurant or market. While in the possession of the restaurant of market, the fish may be displayed for sale, offered for sale and sold.
7. The wildlife was taken alive pursuant to and is possessed in compliance with R12-4-404 or R12-4-427.
8. An Arizona falconer license is not required for visiting nonresident falconers hunting on a valid Arizona hunting license when they are licensed as falconers in their state of residency.
9. Wildlife may be imported, purchased, possessed, transported, traded, given away, propagated, killed and exported by medical or scientific research facilities registered by the United States Department of Agriculture pursuant to 9 CFR Subchapter A, Animal Welfare, revised January 1985, not including any later amendments or editions, which is incorporated by reference herein. A copy is on file with the Office of the Secretary of State and is available for inspection at any Department office, or it may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

**B.** No exemption granted by this rule shall be valid for any wildlife protected by federal law or rule unless supported by federal permission or documentation rendering the exemption lawful.

**C.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-408. Holding wildlife for the Department**

**A.** A game ranger may authorize an individual to possess and transport live wildlife on behalf of the Department when needed as evidence in a pending civil or criminal proceeding.

**B.** A Department employee may authorize an individual to possess and transport captive live wildlife on a temporary basis not to exceed 72 hours.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-409. General Provisions and Penalties for Special Licenses**

**A.** The Department shall issue special licenses as defined in R12-4-401, when application is made and criteria are met as prescribed in the rule governing the specific special license. No special license for any wildlife shall be valid for any wildlife protected by federal law or regulation unless supported by federally issued documentation rendering the licensed activity lawful.

**B.** All special licenses expire on December 31 for the year issued unless otherwise specified in the governing rule. If application for a new special license is not made by the expiration date, live wildlife possessed pursuant to the expired license shall be considered unlawfully possessed and is subject to seizure by the Department. If application for a new special license with no change from a currently existing special license is made on

or prior to the expiration date, the existing license shall remain valid while application is pending with the Department.

**C.** Knowingly providing false information upon application for any special license shall be grounds for denying the special license, and any special license so obtained is void and of no effect from the date of issuance thereof.

**D.** Denials shall be issued in writing and shall state the reason for denial. Any person whose application has been denied may appeal to the Commission as provided in R12-4-608.

**E.** Special license holders shall keep records and submit reports as required by the rule governing their special license. Such records shall be exhibited to any Department game ranger upon reasonable request. Failure to keep records or submit reports as required shall be grounds for rejecting an application or for revocation of a special license.

**F.** Facilities of special license holders are subject to reasonable inspection by a game ranger for compliance with any requirements imposed by this Article. A routine inspection shall not be considered reasonable when the game ranger has inspected another facility holding wildlife of the same class within the previous 72 hours when the game ranger had contact with the wildlife or there was reason to believe disease may have been present.

**G.** When a disease as determined by a person with relevant expertise or other condition constituting an emergency exists that poses an immediate threat to the welfare of wildlife, including the wildlife held pursuant to special license, or to the public, the Department may immediately order a cessation of operation under special license and, if necessary, humane disposition or quarantine of any contaminated or threatening wildlife. Disease testing must be performed as directed by the Department or wildlife quarantined must be destroyed. Any disease giving rise to an emergency condition pursuant to this subsection shall be diagnosed by a person or persons professionally certified to make such diagnosis. Once operation has ceased and an emergency no longer exists, subsection (H) shall apply.

**H.** When a condition exists, including disease or any violation of this Article, including any violation of Section R12-4-428, which poses a threat to the welfare of wildlife, including the wildlife held, or to the public, but which threat does not constitute an emergency, the Department shall provide the licensee a written notice of the condition, by certified mail or personal service, which notice shall specify a reasonable period of time for the licensee to cure the noticed condition. Failure of the licensee to cure the noticed condition within the time specified by the Department shall constitute a violation pursuant to subsection (I) of this rule. When a licensee receives three notices pursuant to this subsection for the same condition within a two-year period, the third notice shall be treated as a failure to cure.

**I.** Violation of any provision of this rule, or of A.R.S. § 13-2908, Criminal nuisance; or conviction of any criminal offense involving cruelty to animals, including A.R.S. § 13-2910; or of the rule governing a specific special license; or refusal to permit reasonable inspection of facilities, wildlife, or required records may result in any or all of the following actions by the Department:

1. Filing of criminal charges;
2. Suspension of authority to hold wildlife pursuant to special license for the remainder of validity of the license;
3. Seizure of any wildlife held pursuant to the special license, and its humane disposition, except that such wildlife shall not be killed pending appeal by the licensee;
4. Denial of subsequent application for a special license for a period not to exceed five years.

**J.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-410. Aquatic Wildlife Stocking Permit**

**A.** An aquatic wildlife stocking permit allows any or all of the following: import, purchase, possession, transport and stocking of the species designated on the permit at the location specified on the permit.

**B.** The following criteria are requisite to approval of application for permit:

1. Applications for stocking aquatic wildlife which have not previously been introduced into the state or do not occur at the location where the stocking is to occur shall include a written proposal which must adequately address biological and socioeconomic ramifications of the introduction. A determination by the Department that negative impact on Arizona wildlife may result from issuance of the permit shall be grounds for denial of the permit. The proposal shall include:
   a. Purpose for introducing species,
   b. Anticipated benefits from introducing species,
   c. Anticipated adverse economic impacts from introduced species,
   d. Anticipated dangers to indigenous or game fish from introduced species,
   e. Anticipated ecology problems with introducing species,
   f. Anticipated diseases inherent to introduced species,
   g. Anticipated hybridization concerns with introducing species,
   h. Suggestions for post-introduction evaluation of status and impacts of introduced species.
2. Aquatic wildlife and live eggs, fertilized eggs, and milt shall be obtained from a licensed Arizona fish farm operator or from a private noncommercial fish pond or from a fish farm located outside Arizona which has been certified free of the diseases and causative agents specified in subsection (D).
3. The aquatic wildlife to be stocked shall be compatible with, and pose no threat to, any wildlife within the drainage or area where the stocking is to occur.

**C.** Application shall be made on forms provided by the Department, by the person requesting that the water be stocked. Applications are available from any Department office.

1. Application requires the following to be provided by the applicant:
   a. Name and address of applicant;
   b. Name and address of business, if applicable;
   c. Name and address of suppliers;
   d. Name and legal description of water to be stocked;
   e. Drainage;
   f. Planned date of stocking;
   g. Species of aquatic wildlife to be stocked;
   h. Any written proposal required at subsection (B) of this rule;
   i. Signature of applicant.
2. The Department shall issue a stocking permit or deny the application for stocking aquatic wildlife not previously introduced within six months of receiving the application; such applicants shall be advised within ten calendar days of application if the extended time period will be required. For all other applicants, the Department shall issue a permit or deny the application within 30 calendar

days. Authorization will not exceed 20 days and is valid only during the dates shown on the permit.

**D.** Live fish and eggs, fertilized eggs, and milt imported into the state must be certified free of the following diseases and causative agents when applicable to the species involved. The certification shall be based on a physical inspection of the fish farm of origin within the 12 months preceding the shipment. The inspection shall be conducted by a fish health inspector or fish pathologist certified by the American Fisheries Society. A copy of the certification shall accompany each shipment.
1. Live fish and eggs, fertilized eggs, and milt:
   a. Causative agent: egtved virus. Disease: VHS, viral hemorrhagic septicemia of salmonids.
   b. Causative agent: infectious hematopoietic necrosis virus. Disease: IHN, infectious hematopoietic necrosis of salmonids.
   c. Causative agent: infectious pancreatic necrosis virus. Disease: IPN, infectious pancreatic necrosis of salmonids.
   d. Causative agent: *Ceratomyxa shasta.* Disease: ceratomyxosis of salmonids.
   e. Causative agent: *Rhabdovirus carpio*. Disease: spring viremia of carp. Certification is required in this case only when the original origin of the shipment is from outside the United States.
   f. Causative agent: *Renibacterium salmoniarum.* Disease: BKD, bacterial kidney disease of salmonids.
2. Live fish only:
   a. Causative agent: *Aeromonas salmonicida.* Disease: furunculosis.
   b. Causative agent: *Myxobolus cerebralis.* Disease: whirling disease of salmonids.

**E.** The aquatic wildlife stocking permit is subject to the provisions of R12-4-409.

**F.** This rule is effective January 1, 1995.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-411. Minnow dealer's license**

**A.** A minnow dealer's license allows any or all of the following: import, transport, purchase, possession, display for sale, offer for sale and sale as live bait, kill, trade or export of any or all of the following live aquatic wildlife as bait:
1. Crayfish;
2. Fathead minnow, *Pimephales promelas;*
3. Golden shiner, Notemigonus crysoleucas;
4. Goldfish, Carassius auratus;
5. Mosquito fish, Gambusia affinis;
6. Red shiner, Notropis lutrensis;
7. Threadfin shad, Dorosoma petenense;
8. Waterdogs, except in that portion of Santa Cruz County lying east and south of State Highway 82, or that portion of Cochise County lying west of the San Pedro River and south of State Highway 82.

**B.** A minnow dealer's license also allows the take for sale, transport and sale of waterdogs from the waters of Arizona in compliance with Commission order.

**C.** The following criteria are requisite for approval of a minnow dealer's license.
1. One application must be submitted for each place of business. Each place of business shall be licensed separately.
2. One application must be submitted for each individual taking waterdogs for sale.

**D.** Application shall be made on a form provided by the Department, which is available from any Department office. The Department shall issue the license or deny the application within 30 calendar days. Application requires the following to be provided by the applicant:
1. Name of applicant,
2. Date of birth,
3. Mailing address,
4. Location where aquatic wildlife will be held and sold,
5. Species of aquatic wildlife to be sold,
6. Signature of applicant.

**E.** Live baitfish specified in subsection (A) may be imported from California and Nevada without accompanying certification that the fish are free from disease, or they may be imported from any other state if accompanied by certification that the fish are free of furunculosis.

**F.** The minnow dealer's license is subject to the provisions of R12-4-409.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-412. Tuberculosis Procedures for Cervidae Possessed by Special License**

Procedures for tuberculosis control and eradication for cervidae listed as restricted live wildlife in R12-4-406 shall be as prescribed in the USDA publication *"Tuberculosis Eradication in Cervidae -- Uniform Methods and Rules,"* U.S.D.A., A.P.H.I.S 91-45-005, effective May 15, 1994, including 1995 amendments. This material is incorporated by reference, does not include any later amendments or editions of incorporated matter, and is on file with the Secretary of State. In addition, a copy may be ordered from the U.S.D.A. A.P.H.I.S. Veterinary Services, Cattle Diseases and Surveillance Staff, P.O. Box 96464, Washington, D.C. 20090-6464.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Repealed effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4). New Section adopted effective November 10, 1997 (Supp. 97-4).

**R12-4-413. Private Game Farm License**

**A.** A private game farm license allows any or all of the following: offer for sale, sale, trade, rent or lease, giving away, purchase, display for sale, import, possession, propagation, rearing, transport and export of the live wildlife specified on the license. The wildlife may be killed but shall not be hunted.

**B.** The following criteria are requisite to approval of a private game farm license.
1. A possible escape of the proposed species would not create a threat to indigenous wildlife.
2. The application required by subsection (C) shall be accompanied by a detailed diagram of the facilities where wildlife is to be held, and a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428.
3. The Department may issue a license for only the following pen-reared game birds:
   a. *Alectoris chukar,* chukar;
   b. *Callipepla californica,* California or valley quail;
   c. *Callipepla gambelii,* Gambel's quail;
   d. *Callipepla squamata,* scaled quail;
   e. *Colinus virginianus,* northern bobwhite. License is required only Units 34A, 36A, 36B, and 36C, as prescribed in R12-4-108;
   f. *Cyrtonyx montezumae,* Montezuma or Mearn's quail;
   g. *Dendragapus obscurus,* blue grouse;

h. *Phasianus colchicus*, ringneck and whitewing pheasant.

4. The Department may issue a license for foxes or mink when a prior inspection of the holding facilities or the plans for those facilities by the Department proves escape is unlikely.
5. The Department may issue a license for other mammals listed as restricted live wildlife only when:
   a. The same species does not exist in the wild in Arizona.
   b. The wildlife shall be disposed of only to game farms licensed pursuant to this rule, zoos licensed pursuant to R12-4-420, to medical or scientific research facilities exempted pursuant to R12-4-407, or by export from Arizona.
   c. The application required in subsection (C) of this rule is accompanied by proof of current licensing by the United States Department of Agriculture pursuant to 9 CFR Subchapter A, Animal Welfare, 1-1-92 edition, not including any later amendments or editions, which is incorporated by reference herein. A copy is on file with the Office of the Secretary of State and is available for inspection at any Department office, or it may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
   d. The application required in subsection (C) of this rule is also accompanied by a typed proposal explaining the species to be possessed, the purpose of possession and the purpose of propagation if applicable, and the planned disposition of wildlife including progeny, and how the licensee shall prevent escape, threat to native wildlife and threat to public safety.
6. The Department may issue a license for any other restricted live wildlife not addressed in subsection (B)(3), (4), or (5), only when the wildlife was held pursuant to a private game farm license issued prior to April 28, 1989.
7. Application shall be for a single location.

**C.** Application shall be made on a form available from any Department office. The Department shall issue the license or deny application within 30 calendar days of receiving the application. Application requires the following to be provided by the applicant:
1. Name, address, and telephone number of the applicant;
2. Location of game farm, including street address or legal description;
3. Species and number of live wildlife to be obtained or, if application is for renewal, which are currently in captivity;
4. Signature of applicant.

**D.** Each shipment of live wildlife imported into the state shall be accompanied by a certificate of health issued by a licensed veterinarian.

**E.** Licensee shall keep records for three years which shall include the number, species, source and date of wildlife obtained or raised and the number, species and date of disposition and manner of disposition of all wildlife, including the names of persons to whom sold, bartered or given.

**F.** A receipt shall be provided to each person transporting dead wildlife from the site of the game farm. The receipt shall include the date of purchase and the name of the game farm, and the number, by species, of wildlife to be transported.

**G.** Shipments of wildlife made by the game farm shall be accompanied by documentation showing the name of the game farm, date shipped, the number of species and the number of individuals per species of wildlife in the shipment, and the name of the person or common carrier transporting the shipment and the name of the person who will receive the shipment.

**H.** Game farm licenses are subject to the provisions of R12-4-409 and R12-4-428.

**I.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-414. Shooting preserve license**

**A.** A shooting preserve license allows the year-round release of pen-reared game birds as specified on the license, at the site specified on the license, for the purpose of hunting or shooting by persons who may be charged a fee. It also allows any or all of the following: import, purchase, possession, transport, trade, display for sale, offer for sale, sale, gift, propagation and export of the live wildlife specified on the license.

**B.** The following criteria are requisite to approval of a shooting preserve license.
1. A possible escape of the proposed species would not create an unacceptable danger to indigenous wildlife.
2. The operation of the facility shall not pose a threat to public safety or to indigenous wildlife.
3. The Department may issue a license for only the following game birds:
   a. *Alectoris chukar*, chukar.
   b. *Anas platyrhynchos*, mallard duck.
   c. *Colinus virginianus*, northern bobwhite.
   d. *Phasianus colchicus*, ringneck and whitewing pheasant.
4. The Department may issue a license for any other live wildlife only when the wildlife was held pursuant to a shooting preserve license prior to the effective date of this rule.
5. The shooting preserve shall be located on private land and shall not exceed 1000 acres.

**C.** Application for a shooting preserve license shall be made on a form provided by the Department, and shall be accompanied by a detailed diagram of the facilities where the wildlife is to be held establishing how the licensee shall prevent escape, threat to native wildlife and threat to public safety, and a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428. The Department shall issue the license or deny the application within 30 calendar days of receiving the application. Application will require the following to be provided by the applicant:
1. Name, address, and telephone number;
2. Legal description of shooting preserve location;
3. Species and number of individuals of each species of live wildlife to be obtained or, if application is for renewal, which are currently in captivity;
4. Signature of applicant.

**D.** Each shipment of live wildlife imported into the state shall be accompanied by a certificate of health issued by a licensed veterinarian.

**E.** The boundaries of the shooting preserve shall be plainly posted every 100 yards with legible signs. Each sign shall indicate that the area behind the sign is a private shooting preserve and display the name of the shooting preserve.

**F.** A receipt shall be provided to each person transporting dead wildlife from the site of the shooting preserve. The receipt shall include the date of purchase and the name of the shooting preserve, and the number by species of wildlife to be transported.

**G.** Shipments of dead wildlife made by the shooting preserve shall be accompanied by documentation showing the name of the shooting preserve, date shipped, the number and species of wildlife in the shipment, and the name of the person or common carrier transporting the shipment and the name of the person who will receive the shipment.

**H.** No hunting license is required to hunt released wildlife on a licensed shooting preserve, and the season may be yearlong. Wildlife released on a shooting preserve and found outside the preserve shall not be taken under provisions of a shooting preserve license.

**I.** Wildlife released on a shooting preserve may be taken by any method not prohibited in R12-4-303.

**J.** Licensee shall keep records for three years which shall include the number, source and date of wildlife obtained or reared and the number, species and date of disposition and manner of disposition of all wildlife, including the names of persons to whom the wildlife was sold, bartered or given.

**K.** Shooting preserve licenses are subject to the provision of R12-4-409 and R12-4-428.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-415. Field trial license**

**A.** A field trial license allows the release and take of released live pen-reared birds specified on the license for the purpose of conducting a competition to test the performance of hunting dogs in one field trial event. It also allows the import or purchase within Arizona, possession, and transport of the birds specified on the license for one field trial event. Birds may be possessed alive by the licensee after the field trial event until December 31 of the year the license was issued. Birds possessed alive subsequent to the field trial event may be transported and may be given away, exported or killed.

**B.** The following criteria are requisite to approval of any field trial license application.
1. The field trial event shall not exceed ten consecutive days.
2. Release shall not be approved for any site where there is an established wild population of the same species of upland game birds or where release of birds may interfere with wildlife or habitat restoration programs, or during nesting periods if there are nesting upland game birds or waterfowl in the area.
3. The Department may issue a license for only the following game birds:
   a. *Alectoris chukar,* chukar;
   b. *Anas platyrhynchos,* mallard duck;
   c. *Colinus virginianus,* northern bobwhite;
   d. *Phasianus colchicus,* ringneck and whitewing pheasant.

**C.** Application shall be made on a form provided by the Department. The form shall be accompanied by a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428. The Department shall issue the license or deny the application within 30 calendar days of receiving the application. The form requires that the following be provided by the applicant:
1. Name, phone number and address of the applicant;
2. Number and species of live birds to be used in the event;
3. Legal description for location of event;
4. Beginning dates of the event;
5. Signature of applicant.

**D.** Each shipment of birds imported shall be accompanied by a certificate of health from a licensed veterinarian for the shipment.

**E.** The field trial event shall be held only on the dates and in the location specified on the license, and only the species of birds specified on the permit shall be released or taken.

**F.** Any released birds not taken or recovered during the dates specified on the permit become property of the state.

**G.** No hunting license shall be required for participants in a field trial event held pursuant to the provisions of this rule. The licensee or a representative for the licensee shall have the field trial license in possession during the event at the site of the event. Released wildlife may be taken by any method not prohibited in R12-4-303.

**H.** Wildlife being transported from a field trial event shall have a tag or label affixed to each container of live birds, carcass or package listing:
1. The name of the licensee,
2. The date of shipment or transport,
3. The number and species of wildlife,
4. The name of the person or common carrier transporting them and the name and address of the person who will receive the shipment.

**I.** Licensee shall submit a report to the Department within 30 calendar days following the event, of the species and number of birds released and retaken. A list of names and addresses of participants shall be available for inspection by the Department.

**J.** Field trial licenses are subject to the provisions of R12-4-409 and R12-4-428.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-416. Field Trial Training Permit**

**A.** A field trial training permit allows the release and take of released live pen-reared birds specified on the permit, by one individual for the purpose of dog or raptor training. Birds may be purchased within Arizona, or imported when the shipment is accompanied by a certificate of health issued by a licensed veterinarian. Birds possessed pursuant to this rule may be transported, and may be given away, exported or killed.

**B.** The following criteria are requisite to approval of any field trial training permit.
1. Release shall not be approved for any site where there is an established wild population of the same species of birds or where release of birds may interfere with wildlife or habitat restoration programs, or during nesting periods if there are nesting upland game birds or waterfowl in the area.
2. The Department may issue a license for only the following game birds:
   a. *Alectoris chukar,* chukar;
   b. *Anas platyrhynchos,* mallard duck;
   c. *Colinus virginianus,* northern bobwhite;
   d. *Phasianus colchicus,* ringneck and whitewing pheasant.

**C.** Application shall be made on a form provided by the Department. The form shall be accompanied by a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428. The Department shall issue the permit or deny the application within 30 calendar days of receiving the application. The form requires that the following be provided by the applicant:
1. Name, address and phone number;
2. Proposed geographic location of sites where release is to occur;
3. Proposed dates during which training would occur at each site;
4. Signature of applicant.

**D.** Release shall occur only within locations and dates approved and specified on the permit, and only the species of birds specified on the permit shall be released or taken.
**E.** The permit shall be in the possession of the permittee during dog training and transport of wildlife.
**F.** No hunting license shall be required for take of birds released pursuant to the provisions of this rule by the permittee. Pursuit of nonreleased wildlife requires a hunting license.
**G.** The field trial training permit is subject to the provisions of R12-4-409 and R12-4-428.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-417. Wildlife holding permit**

**A.** A wildlife holding permit allows the possession and transport of the live wildlife specified on the permit. It may also allow the import, educational display, purchase, propagation and disposal of the specified live wildlife, dependent upon Department evaluation of and stipulations made pursuant to the proposal submitted in compliance with subsection (B).
**B.** The following criteria are requisite to approval.
1. The applicant's privilege to take or possess wildlife is not under current suspension or revocation by the government of any state or the United States.
2. Issuance of a wildlife holding permit shall be for a purpose which is in the best interest of the wildlife or species to be held, wildlife management, education, the advancement of science, or promotion of the public health or welfare, when such purpose may be served without posing a threat to wildlife or public safety and shall not adversely impact upon any other affected wildlife in Arizona. Determination of purpose shall be based upon a written proposal which shall be submitted with the application form required at subsection (C). The written proposal shall stipulate, demonstrate, or include all of the following:
   a. If wildlife is in possession, evidence of lawful possession as defined in R12-4-401; if wildlife is not in possession, proof of application for evidence of lawful possession;
   b. The street address or legal description of the location where wildlife is to be held, and a detailed diagram of the facilities where the wildlife is to be held along with a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428;
   c. Dates that the holding of wildlife is proposed to begin and end;
   d. A detailed description of the scientific or educational activity proposed;
   e. A statement of the planned disposition and method of disposition of the wildlife at the conclusion of the proposed activities.
   f. A statement of the applicant's experience in handling and providing care for the wildlife proposed for possession or of other experience that may be relevant to handling or providing care for wildlife.
3. Wildlife holding permits may also be issued for specific animals when humane treatment by a person is necessary to safeguard and protect the interests of that animal, including animals which are unable to meet their own needs in the wild, have been abandoned, are permanently disabled, or are no longer useful for any previously existing captive or licensed purpose. Application for possession of animals for this purpose shall be accompanied by a written statement specifying what the animal is, where it is currently possessed, who is currently in possession, and why the animal meets the requirements of this Section. The statement shall also include the street address or legal description of the location where wildlife is to be held, and a detailed diagram of the facilities where the animal is to be held, along with a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428.

**C.** Applications for wildlife holding permits are available from any Department office and shall be submitted to the Department's Phoenix office. The Department shall issue the permit or deny the application within 30 calendar days of receiving the application. The following shall be provided by the applicant on the form:
1. Name, mailing address, and telephone number.
2. If applicable, the name, address and telephone number of the educational, scientific or other institutional affiliation of the applicant.
3. The species, or higher taxa, if appropriate, of wildlife proposed for possession.
4. Signature of applicant.

**D.** A copy of the permit shall accompany any shipment of wildlife made under the authority of the permit.
**E.** Any person holding wildlife pursuant to this rule shall file an annual report, on a form supplied by the Department to the Department's Phoenix office, within 30 days after expiration of the permit. The following information shall be provided by the permittee on the form:
1. Name, address and phone number of permittee;
2. Federal permit number or numbers, if applicable;
3. A listing of each animal held during the year, by species, including the source and date of acquisition and the place and date of disposition for each animal.

**F.** Wildlife holding permits are subject to the provisions of R12-4-409 and R12-4-428.
**G.** Wildlife holding permits expire on December 31 of the year of issuance, or, if the permittee is a representative of an institution, organization or agency, upon termination of affiliation with that entity, whichever comes first.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-418. Scientific Collecting Permit**

**A.** The scientific collecting permit allows the following, subject to Department evaluation of and stipulations made pursuant to the application submitted in compliance with subsection (C).
1. Wildlife specified on the permit may be taken in the localities and time periods specified on the permit, and may be taken by any method prescribed in R12-4-304 or R12-4-313, and, when specifically authorized by the permit, may also be taken by the use of stupefying or deleterious substances, electroshock, pitfalls, leghold traps, snares, or nets, and at night by firearms, providing the least onerous practical method is employed. The Department may rescind or modify any method of take authorized in a permit when it is deemed necessary to do so to protect the interests of wildlife or public safety. The permit may restrict the number of animals per species or other taxa which may be taken, as well as the age or condition of the wildlife which may be taken.
2. The possession, transportation, propagation and educational display of live wildlife until December 31 of the year of collection.

3. Specified live wildlife may be disposed of as authorized by the Department, or released when not removed from the area where captured, or released in a location previously approved by the Department.

**B.** The following criteria are requisite to approval:
1. The applicant's privilege to take or possess wildlife is not under current suspension or revocation by the government of any state or the United States.
2. Issuance of a scientific collecting permit shall be for a purpose which is in the best interest of the wildlife species to be held, wildlife management, education, the advancement of science, or promotion of the public health or welfare, when such purpose may be served without posing a threat to wildlife or public safety, and without unnecessarily duplicating previously documented projects. Determination of purpose shall be based upon a written proposal which shall be submitted with the application form required at subsection (C). The Department may require submission of interim reports in addition to those required by subsection (G) and may make the requirement a criterion for issuance.

**C.** Applicants shall provide the following information on a form supplied by the Department. The form shall be accompanied by a detailed description, not to exceed three pages, of the purpose, methods, completion schedule and publication intent of the project proposed, including a statement of the qualifications of the applicant relative to the proposal, and by a detailed description of the procedures to be employed by the applicant in meeting the requirements of R12-4-428. Application shall be submitted to the Department's Phoenix office. The Department shall issue the permit or deny the application within 30 calendar days of receiving the application.
1. Name, address, phone number, and physical description of applicant;
2. If applicable, the name, address and telephone number of the scientific or educational institution affiliation or governmental employer;
3. A complete list by species, or higher taxa, if appropriate, of all wildlife for which collecting authorization is sought and the number of individuals per taxon;
4. The locality or localities for which collecting activities are proposed;
5. Whether applicant proposes to:
   a. Salvage specimens found dead,
   b. Collect specimens alive and keep them,
   c. Collect specimens by killing,
   d. Collect specimens alive and release at the site where taken without transporting from that site after photographing or banding or marking them with rings, bands, collars, brands or other markings;
6. The method or methods of take to be used, including justification for selection of the methods proposed;
7. Planned disposition of wildlife collected and progeny of wildlife collected.

**D.** Scientific collecting permits shall be issued to individuals, but applicants may request in writing that one or more named individuals be authorized to act as agents on their behalf, provided:
1. There is an employment or supervisory relationship between the permittee and all agents and no agent's privilege to take or possess wildlife shall be under current suspension or revocations.
2. If the permit limits the number of animals which may be collected, the limit shall apply to the aggregate of all collectors.
3. Permittees may at any time during the license period make written request to amend their permit to add or delete agents meeting the criteria above. The Department shall approve or deny the request within 30 calendar days.
4. The Department shall be notified in writing within ten calendar days of termination of any agent.

**E.** Prior to collecting any wildlife at night with firearms, the permittee shall notify the regional Department office nearest the locality of the planned collection and advise that office of the dates, times, places and methods of collection.

**F.** A copy of the permit shall accompany any shipment of wildlife made under authority of the permit.

**G.** Each permittee shall file a written report on a form available from the Department, within 30 days after expiration of the permit. A report is required even if no collecting was done. The following information shall be provided by the permittee and shall include information from agents acting on behalf of the permittee:
1. Name and address of permittee and any agency affiliation relevant to the permit;
2. Name and address of all agents;
3. Scientific collecting permit number and date of issuance;
4. A list by specimen of all species collected live or dead of any species listed as "threatened native wildlife" as defined in R12-4-401; big game animals as defined in A.R.S. § 17-101; yellow mud turtle, *Kinosternon flavescens;* flat-tailed horned lizard, *Phrynosoma mcallii;* Gila monster, *Heloderma suspectum;* rock rattlesnake, *Crotalus lepidus;* twinspotted rattlesnake, *Crotalus pricei;* ridgenosed rattlesnake, *Crotalus willardi;* and desert tortoise, *Xerobates (Gopherus) agassizii;* providing also detailed localities including legal descriptions, dates of take and places of disposition for all such specimens;
5. A list by species and number of individuals for all wildlife taken, banded, possessed, or disposed of that are not listed above.

**H.** Scientific collecting permits are subject to the provisions of R12-4-409 and R12-4-428.

**I.** Scientific collecting permits expire on December 31 of the year of issuance, or, if the permittee is a representative of an institution, organization or agency, upon termination of affiliation with that entity, whichever comes first.

**J.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-419. Wildlife hobby license**

**A.** A wildlife hobby license allows any or all of the following: import, purchase, possess, propagate, give away, kill, transport and export pen-reared live wildlife for personal, noncommercial use only. The wildlife may also be displayed for noncommercial purposes but shall not be displayed or maintained in conjunction with any commercial establishment.

**B.** The following criteria are requisite to approval of a wildlife hobby license.
1. A possible escape of the proposed species would not create a threat to indigenous wildlife.
2. The issuance of a license shall be for a purpose in the best interest of the wildlife or species to be held and shall not adversely impact upon any other affected wildlife in Arizona.
3. The Department may issue a license for only the following pen-reared game birds:

a. *Alectoris chukar,* chukar;
b. *Callipepla californica,* California or valley quail;
c. *Callipepla gambelii,* Gambel's quail;
d. *Callipepla squamata,* scaled quail;
e. *Colinus virginianus,* northern bobwhite; a license is required only in Units 34A, 36A, 36B, and 36C as prescribed in R12-4-108;
f. *Cyrtonyx montezumae,* Montezuma or Mearn's quail;
g. *Dendragapus obscurus,* blue grouse;
h. *Phasianus colchicus,* ringneck and whitewing pheasant.

**C.** Application shall be made on a form available from any Department office. Application to possess more than 25 birds shall be accompanied by a detailed diagram of the facilities where the wildlife is to be held and a detailed description of the procedures to be employed by the applicant to meet with the requirements of R12-4-428. The Department shall issue the license or deny the application within 30 calendar days. Application requires the following to be provided by the applicant:
1. Name, address and telephone number of the applicant;
2. Location where wildlife is to be held, either:
   a. Street address, or
   b. Legal description;
3. Species of wildlife to be obtained or, if application is for renewal, species currently in captivity;
4. Signature of applicant.

**D.** Wildlife hobby licenses are subject to the provisions of R12-4-409 and R12-4-428.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-420. Zoo License**

**A.** A zoo license allows any or all of the following: exhibit, educational display, import, purchase, export, possession, propagation, euthanization, transport, give away, offer for sale, and sale or trade of restricted live wildlife, subject to the following restrictions:
1. All wildlife possessed by the zoo shall be held in the facilities specified on the license except when being transported to or from temporary exhibits. Temporary exhibits shall not exceed 20 consecutive days at any one location.
2. Disposition of restricted live wildlife within Arizona shall only be to another zoo licensed pursuant to this rule, a game farm licensed pursuant to R12-4-413, a medical or scientific research facility exempted pursuant to R12-4-407, or as directed by the Department.
3. No zoo shall accept any wildlife donations nor purchase or otherwise obtain wildlife without accompanying evidence of lawful possession.
4. All wildlife obtained pursuant to a scientific collecting permit, or wildlife which has been loaned to the zoo directly from the Department, may be disposed of only as directed by the Department.

**B.** The following criteria are requisite to approval of a zoo license.
1. The operation shall meet the definition of "zoo" at A.R.S. § 17-101(A)(22).
2. Application shall be accompanied by proof of current licensing by the United States Department of Agriculture pursuant to 9 CFR Subchapter A, Animal Welfare, 1-1-92 edition, not including any later amendments or editions, which is incorporated by reference herein. A copy is on file with the Office of the Secretary of State and is available for inspection at any Department office, or it may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
3. The issuance of a license shall be for a purpose in the best interest of the wildlife or species to be held and shall not adversely impact upon any other wildlife in Arizona.

**C.** Application shall be made on a form provided by and available from any Department office. The Department shall issue the license or deny the application within 30 calendar days of receiving the application. The following shall be provided by the applicant on the form:
1. Name and location of zoo,
2. Mailing address and telephone number for zoo,
3. Signature of owner or person responsible for the zoo.
4. Applications which are not for renewal of a previously granted license shall be accompanied by a list of restricted live wildlife to be held and number of each. The list shall include scientific and common names as specified in R12-4-406.

**D.** Licensee shall maintain a record of each animal obtained pursuant to subsection (A), paragraph (4) for three years following the date of disposition. The record shall include the species, date received, any Department approval authorizing acquisition, and the date and method of disposition.

**E.** Zoo licenses are subject to the provisions of R12-4-409.

**F.** This rule is effective January 1, 1995.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-421. Wildlife Service License**

**A.** A wildlife service license allows the live capture, transport and relocation of furbearing, predatory or nongame wildlife that is causing a nuisance, causing property damage, or posing a threat to the health or life of any human being, or where the life, health or well-being of any such wildlife is threatened by the condition of its immediate environment. Wildlife service permits shall be issued to individuals and shall be subject to Department evaluation of and stipulations made pursuant to the application submitted in compliance with subsection (C). Wildlife service permits shall not be valid for any wildlife protected by federal law or regulation unless supported by federally issued documentation rendering the activity lawful.

**B.** The following criteria are requisite to approval:
1. The applicant's privilege to take or possess wildlife is not under current suspension or revocation by the government of any state or the United States.
2. The licensee shall provide documentation to prove a minimum of six months of full-time employment or voluntary service experience in handling wildlife of the species or groups of species for which the wildlife service permit would be valid.

**C.** Application shall be made on a form available from any Department office. The Department shall issue the permit or deny the completed application within 60 calendar days of receiving it. The following information shall be supplied at the time of application:
1. Name, mailing address, and day and night telephone numbers to be provided to the public seeking service, and the hours and days of the week when the applicant will be available for service;
2. A list of wildlife, by species or groups of species, for which authorization is requested;
3. The general geographic area for which services are to be performed;

4. Signature of applicant and date of submittal of application;
5. The applicant shall submit a written narrative statement with the application, containing a statement of the applicant's experience in the capture, handling and removal of wildlife, specifying all species of wildlife for which the applicant has performed such a function, referencing the general location and dates that such services were performed along with the methods of disposition for wildlife captured.

**D.** The Department may return to the applicant, without denial, any application that is lacking information required above, including information that is necessary to establishing that the applicant has met the criteria requisite to approval. Each returned application shall be accompanied by a letter stating what information the applicant has failed to provide. When the missing information can be provided verbally, the Department may handle the corrections by telephone, noting where such changes have been made, and the 60-day approval or denial period shall be restarted on receipt of the completed application.

**E.** A copy of the approved license shall be in the possession of the licensee at all times when the licensed function is being performed.

**F.** Capture, removal, transport and relocation of any wildlife taken pursuant to this rule shall be accomplished in the manner which is least likely to cause injury to the affected wildlife and is least likely to result in negative human interaction. The licensee's possession of the wildlife shall not extend beyond the period of time necessary to transport and relocate the wildlife, except as allowed by R12-4-427. No wildlife shall be publicly displayed during any period of possession pursuant to this rule.

**G.** A wildlife service licensee shall advise the Department within five working days of any change in telephone numbers, area of service, or change in business hours or days as previously submitted to the Department.

**H.** Licensees may at any time during the license period make a written request to amend their license to add or delete authority to transport and release designated species of wildlife, provided that any addition requested meets the requirements of subsection (A) of this rule. The Department shall approve or deny the request within 60 days by the procedures prescribed in subsections (C) and (D) of this rule.

**I.** Applications for renewal of wildlife service licenses without change of or authority may reference supportive materials submitted previously, and replicate copies of such materials need not be submitted with the application for renewal.

**J.** Licensees shall submit a written report to the Department on or before the 20th day of January following each license year. The report shall contain the following information:
1. The licensee's name, address, telephone number and permit number.
2. A list of all services performed pursuant to the permit during the preceding calendar year, including for each service the date, location of service, the number and species of wildlife removed, and the final disposition of each animal removed including location of release.

**K.** The wildlife service license is subject to the provisions of R12-4-409 and R12-4-428.

**L.** This rule is effective January 1, 1993.

**Historical Note**
Adopted effective January 1, 1993; filed December 18, 1992 (Supp. 92-4).

**R12-4-422. Falconers: Licensing and Requirements**

**A.** For the purposes of this Section, the following definitions apply:
1. "Eyas" means a flightless raptor that is found in the nest and is dependent upon a parent bird for food;
2. "Falconry" means the sport of taking quarry by means of a trained raptor;
3. "Passage" means a raptor in immature plumage, capable of flight and able to hunt and obtain its own food, and which is less than 1 year of age;
4. "Raptor" means a live migratory bird of the species great horned owl, *Bubo virginianus*, of the family Strigidae; any of the family Falconidae; and any of the family Accipitridae, other than the bald eagle, *Haliaeetus leucocephalus*; which under the provisions of this rule may be used in the practice of falconry;
5. "Sponsor" means a licensed Class II or Class III falconer who agrees to supervise and instruct no more than 3 Class I falconers in the practice of falconry at any 1 time.

**B.** The Department shall inspect the raptor housing facilities and equipment of any applicant not previously licensed in Arizona, and determine that the facilities and equipment meet the requirements of this rule, before issuing a license to the applicant. A license is valid from the date it is issued by the Department until the 3rd December from the date of issue. The Department shall issue falconer license to an applicant who complies with application procedures in this rule and meets the following criteria:
1. For a Class I Apprentice Falconer License:
   a. Is 14 years of age or older;
   b. Has a sponsor at the time of application, and shall provide to the Department a written commitment from the sponsor to continue sponsoring the applicant for the 1st 2 years as a licensed falconer;
   c. Answers correctly at least 80% of the questions on an examination supervised and administered by the Department and approved by the U.S. Fish and Wildlife Service, relating to basic biology, care, and handling of raptors, and other subject matter related to falconry.
2. For a Class II General Falconer License:
   a. Is 18 years of age or older;
   b. Has at least 2 years of falconry experience at the Class I level, computed from the date that the applicant obtained the 1st Class I Apprentice Falconer License;
   c. Provides to the Department a letter of recommendation from a falconers' association affiliated with the North American Falconers Association, stating that the applicant is qualified and eligible to become a Class II falconer.
3. For a Class III Master Falconer License:
   a. Is 23 years of age or older;
   b. Has at least 5 years of falconry experience at the Class II level, computed from the date that the applicant obtained the 1st Class II General Falconer License.

**C.** Any new resident shall make application for an Arizona falconer license within 30 days of importing any raptor possessed by the authority of a falconer license issued by another lawful jurisdiction. Any applicant for an Arizona falconers license shall present any raptor in possession for inspection at the time of application.

**D.** Applicants shall provide the following information on a form available from the Department, and shall sign the completed form:

1. Name, address, and telephone number;
2. Physical description and date of birth;
3. Valid Arizona hunting license number and identification number;
4. The falconer license classification desired. Class I applicants shall supply their sponsor's name and address on the form;
5. The number of raptors the applicant possesses at the time of application and the species; age, if known; sex, if known; band numbers; date of acquisition; and source of each.

**E.** A Class I licensee may possess only 1 raptor at a time; the raptor may be lawfully obtained in another state. The Class I licensee shall obtain all birds from the wild and shall not obtain more than 1 raptor for replacement purposes during any calendar year. A Class I licensee shall not take an eyas bird.

**F.** A Class II licensee shall not possess more than 2 raptors at a time. The raptors may be any species except a golden eagle or a species listed as endangered or threatened. A Class II licensee shall not obtain more than 2 raptors during any calendar year.

**G.** A Class III licensee shall not possess more than 3 raptors at a time. The raptors may be of any species authorized by the U.S. Fish and Wildlife Service. A Class III licensee shall not obtain more than 2 raptors taken from the wild during any calendar year, but may obtain raptors from other lawful sources within the 3-raptor possession limit.

**H.** All falconer applicants and licensees shall provide either an indoor or outdoor housing facility with the following attributes, designed to protect the raptor from the environment, predators and undue disturbances:

1. Indoor facilities.
   a. An area large enough to allow easy access for caring for the raptors housed in the facility;
   b. An area for each bird large enough to allow each raptor to fully extend its wings, with perches textured to prevent foot problems;
   c. At least 1 window, protected on the inside by vertical bars, spaced narrower than the width of the raptor's body, and a door that can be easily closed and secured;
   d. A well drained floor designed to permit easy cleaning;
   e. Tethers or partitions separating each raptor, if the licensee is keeping more than 1 raptor in the same facility.
2. Outdoor facilities.
   a. A fenced and covered enclosure with netting or wire, or roofed to protect the raptors from disturbance and attack by predators, except that perches more than 6½ feet high need not be covered or roofed;
   b. An enclosed area large enough to insure the raptors cannot strike the fence when flying from the perch;
   c. Protection from the sun, wind, and inclement weather for each raptor and perches which are textured to prevent foot problems.

**I.** All falconer applicants and licensees shall possess and use the following equipment:

1. At least 1 pair of jesses constructed of pliable, high-quality leather or synthetic material, containing bracelets to affix to each leg of a raptor, with a grommet through which a strap passes freely so that an escaped raptor can pull the strap out of the bracelet. The licensee shall use this equipment when any raptor is flown free. Licensees may use traditional 1-piece jesses on raptors only when not being flown;
2. At least 1 flexible, weather-resistant leash and 1 strong swivel designed for falconry;
3. At least 1 container, 2 to 6 inches deep and wider than the length of the raptor, for drinking and bathing for each raptor;
4. At least 1 raptor perch for each raptor;
5. A reliable scale or balance suitable for weighing the raptor or raptors, held and graduated to increments of not more than ½ ounce, or 15 grams.

**J.** A Class I, II, or III falconer licensed in Arizona or a state recognized by the U.S. Fish and Wildlife Service as meeting federal falconry standards may capture raptors for the purpose of falconry only, in accordance with the Commission order establishing raptor capture seasons for licensed falconers. When there is reason to believe that a species of raptors may be overharvested by nonresidents if the number of permits is not limited, the Commission shall specify the number of permits available to nonresidents in the Commission order.

1. During capture, the licensee shall have in possession the falconer license, Arizona hunting license, and any required hunt permit-tag issued to that licensee.
2. The licensee shall immediately release any nontarget raptor inadvertently captured. If the raptor is wearing a band or other marker the licensee shall report the capture and release of the marked bird to the Department, along with any identifying number and related information.
3. The licensee shall not remove any eyas raptor from any nest unless 1 or more live eyas raptors remain in the nest after the removal.
4. The licensee may capture raptors only with traps or bird nets which are unlikely to cause injury to the raptor, and shall not use mist nets, steel-jawed traps, or stupefying substances.
5. The licensee shall ensure that all traps or nets in use are in constant attendance, and that any raptor trap or net being used is plainly identified with the licensee's name and address.
6. The licensee shall present each captured Harris hawk, Gyrfalcon, or Peregrine falcon to the Department within 5 calendar days after capture. The licensee shall present each captured raptor of any other species to the Department within 14 calendar days after capture. A Department representative shall attach a numbered band to 1 leg of the lawfully obtained raptor. This band shall not be removed except by an authorized official of the Department, or except as provided in this rule. Licensees shall not alter, counterfeit, or deface a band but may remove the rear tab on the band and may smooth any imperfect surface provided the integrity of the band and numbering are not affected.

**K.** Licensees may use raptors for educational display.

**L.** Licensees may retain and exchange feathers that are molted or those feathers from raptors held in captivity that die only for purposes of repairing or replacing a broken feather with a feather.

**M.** If any raptor used in falconry incidentally kills any species of wildlife for which there is no open season or for which the season is closed, the licensee shall not take the dead wildlife into possession. The licensee shall leave the wildlife where it lies, but may allow the raptor making the kill to feed on the dead wildlife before leaving the site.

**N.** Licensees may transfer raptors taken from the wild in Arizona to an Arizona resident's federal raptor propagation license, with the concurrence of the U.S. Fish and Wildlife Service.

**O.** A licensee shall not transfer a raptor taken from the wild in Arizona to another falconer licensed outside of Arizona, or export the raptor from the state, without written authorization from the Department. The Department shall not authorize exportation transactions involving more than 2 raptors taken from the wild in Arizona, singly or in combination, per licensee in any calendar year. The Department shall deny any request for authorization of exportation when the number or species which have been or are being exported is not in the best interest of raptor management.

**P.** A licensee may place a raptor or raptors in temporary facilities, under the care of another licensee, for a period not to exceed 30 days, providing that the licensee gives written authorization to the other licensee for temporary care.

**Q.** A licensee may do 1 of the following when in possession of a raptor no longer used in the practice of falconry:
1. Release the raptor to the wild into suitable habitat, provided that the raptor was taken from the wild in Arizona, and that all jesses, markers, or other equipment are removed, and that any federal marker is removed and returned to the Department within 10 days of release;
2. Give the raptor to another licensed falconer, except as provided in subsection (O);
3. Transfer the raptor to the Department;
4. Sell or trade the raptor, if it is a lawfully possessed captive bred raptor marked with a seamless leg band.

**R.** Licensees changing residence to another jurisdiction may export their lawfully possessed raptors.

**S.** A licensee shall transfer the carcass of a raptor which has died to a Department office, or destroy the carcass after receiving authorization for destruction of the carcass from the Department. The licensee shall remove any federal markers prior to destroying the carcass and return the markers to the Department.

**T.** A licensee shall report the escape of a raptor to the Department within 5 days. Any licensed falconer may recapture an escaped banded raptor at any time and shall notify the Department within 5 calendar days of the capture.

**U.** Within 5 calendar days of acquisition of any raptor by any method, or disposition of any raptor by any method, a falconer licensee shall submit to the Department a copy of a U.S. Fish and Wildlife Service Migratory Bird Acquisition and Disposition Report, Form 3-186A, dated June 30, 1991, not including any later revisions, which is incorporated by reference. The form shall be completed and signed by the licensee in accordance with the instructions on the form. A copy of the incorporated form is on file with the Secretary of State and available from the U.S. Fish and Wildlife Service Regional Law Enforcement Office, Albuquerque, New Mexico, 87103.

**V.** Falconer licensees are subject to the provisions of R12-4-409.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4). Amended effective April 4, 1997 (Supp. 97-2).

**R12-4-423. Wildlife Rehabilitation License**

**A.** For the purposes of this rule, the following definitions shall apply:
1. "Agent" means a person designated on the license who assists a licensee in performing rehabilitative functions, including transport or release of wildlife, provided there is an employment or direct supervisory relationship between the licensee and the agent.
2. "Assistant" means a person not designated as an agent who assists the licensee under direct supervision at the premises described on the license.
3. "License" means the license form issued by the Department, and the application form submitted by the applicant and approved by the Department, including any stipulations made upon approval.
4. "Migratory birds" means all species listed at 50 CFR 10.13, revised October 1, 1988, not including any later amendments, which is incorporated by reference herein. A copy of the incorporated matter is on file with the Secretary of State and available for inspection at any Department office, or it may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.
5. "Taxa" means groups of animals within specific classes of wildlife occurring in Arizona and having characteristics in common with each other that establish relatively similar requirements in habitat, food and other ecological or behavioral factors pertinent to establishing standards of housing, care and/or rehabilitation as follows:
   a. Amphibians: all amphibians.
   b. Reptiles: all reptiles.
   c. Birds:
      i. non-passerines, birds in any Order other than those named below;
      ii. raptors, birds in the Orders Falconiformes or Strigiformes;
      iii. quail, birds in the Order Galliformes;
      iv. doves, birds in the Order Columbiformes;
      v. hummingbirds, birds in the Order Trochiliformes
      vi. Passerines, birds in the Order Passeriformes.
   d. Mammals:
      i. nongame mammals;
      ii. bats, all bats;
      iii. big game mammals: bighorn sheep, bison, black bear, deer, elk, javelina, mountain lion and pronghorn;
      iv. carnivores: bobcat, coati, coyote, foxes, ringtail, skunks and weasel.
   e. All other systems of classification or nomenclature notwithstanding, endangered or threatened species and threatened native wildlife as defined at R12-4-401 and golden eagles, Gila monsters, twin-spotted rattlesnakes and banded rock rattlesnakes are not included in the taxa defined above and shall not be possessed pursuant to license unless specifically authorized on that license.

**B.** A wildlife rehabilitation license allows the live capture; transport; possession; rehabilitation; transfer to a practicing veterinarian for treatment or euthanasia or to another rehabilitator licensed for the wildlife; and release and euthanasia of the injured, diseased, disabled, orphaned or otherwise debilitated live wildlife specified on the license. It may also allow the wildlife to be exported, transferred to a licensed zoo or disposed of as directed by the Department. The authorized activities shall be subject to Department evaluation of, and stipulations made pursuant to, applications submitted in compliance with subsections (E) or (F). Applications may be denied or the license may be limited based upon the training and experience of the applicant. Wildlife rehabilitation licenses shall be:
1. Issued only for the purpose of restoring wildlife to the wild through rehabilitative activities; all wildlife held pursuant to the license remains the property of the state of

Arizona and shall be returned to the Department on request.

2. Issued to provide a public service, with the names and telephone numbers of all licensees being subject to public disclosure by the Department, and no fee or other compensation shall be charged by the licensee for the wildlife rehabilitation functions performed.
3. Issued to individuals, who shall be solely responsible for all expenses incurred and all actions undertaken pursuant to the license, including all actions and omissions of all agents and assistants.
4. Valid only for the premises described on the license.

**C.** The following criteria are requisite to approval:

1. The privilege of the applicant or any agent to take or possess wildlife is not under current suspension or revocation by the government of any state or the United States
2. Licenses to rehabilitate migratory birds shall be issued only to persons 18 years of age or older. The application of a minor to rehabilitate any other species shall be cosigned by the minor's parent or legal guardian and shall be notarized prior to submittal. See subsection (B)(5) of this rule.
3. The applicant shall provide documentation to prove one more of the following:
   a. A valid, current license issued by a state veterinary medical examination authority authorizing the applicant to practice as a veterinarian.
   b. A minimum of six months of experience performing wildlife rehabilitative work for an average of not less than eight hours per week for the taxa of animals proposed to be held pursuant to license, while assisting a licensed wildlife rehabilitator, a veterinarian or a state or federal wildlife agency.
   c. A current, valid wildlife rehabilitation license issued by the government of any state or the United States.
4. The applicant shall also provide documentation that within the last five years applicant has answered correctly as least 80 percent of the questions on a written or tape recorded examination supervised and administered by the Department related to: wildlife rehabilitation; the handling, transport, humane treatment, nutritional, behavioral, developmental, ecological and habitat requirements of wildlife; captivity standards established at R12-4-428; human and wildlife safety considerations; this rule; and R12-4-409.
   a. The test shall be administered by appointment at any Department office during normal working hours.
   b. The written score of the test shall be mailed to the applicant within 30 calendar days of the examination date.
   c. Only those sections of the test that are applicable to the taxa of wildlife for which the license is sought shall be considered in establishing the qualifications of the applicant.
5. Any licensee who, prior to expiration of a Department license to rehabilitate wildlife, makes application to continue the authorized activities unchanged for those species and for no others is exempted from the written examination required by this subsection, unless written reports filed pursuant to subsection (Q) show that no rehabilitative functions were performed during the license period preceding the one for which application is being made.

**D.** Applications for wildlife rehabilitation licenses shall be made on a form available from any Department office. Except as provided at subsection (E) of this rule, the Department shall issue the license or deny the application with 60 calendar days of receipt. Applications and licenses issued pursuant to this rule shall reference the taxa defined in subsection (A) of this rule or shall stipulate specific species.

1. The applicant shall submit the following information on the form:
   a. Name, date of birth, mailing address and telephone number of the applicant.
   b. Names, dates of birth, mailing addresses and telephone numbers of all agents.
   c. Street addresses or legal descriptions of all premises at which wildlife rehabilitation facilities would be established.
   d. The taxa or species of wildlife proposed to be rehabilitated.
   e. Signature of the applicant and date of submittal of the application.
2. The form shall be accompanied by typed, signed statements executed by all proposed agents acknowledging that their privilege to take or possess wildlife is not under current suspension or revocation by the government of any state or of the United States.
3. The form shall also be accompanied by a typed, signed narrative statement demonstrating, describing or including at a minimum the following:
   a. Whether the applicant requests that methods of disposition of wildlife include export, transfer to a licensed zoo or other methods under direction of the Department.
   b. Any application to rehabilitate taxa not currently authorized by the Department shall include a statement of the applicant's training and experience in the handling, capture, rehabilitation and care of the taxa for which application is being made.
   c. Detailed diagrams of all rehabilitation facilities in which wildlife would be held, including facilities to be used by agents. The diagrams must describe holding facility dimensions, though not necessarily to scale, and materials, location relative to buildings and fences, and relevant information as to proposed construction and expected completion dates.
   d. A description of the procedures to be employed to ensure the standards set in R12-4-428 are met at all times, including a description of: cleaning methods; food and water supply; shelter; bedding; and mechanisms for prevention of escape of wildlife and, for potentially dangerous animals, protection of human safety.
4. When required by subsection (C) of this rule, the application shall also be accompanied by documentation of a passing score on the examination prescribed in paragraph (C)(4).
5. One or more of the following shall also be submitted with the application:
   a. A typed, signed statement that the applicant is a licensed, practicing veterinarian; or
   b. A typed, signed statement from the Department's Adobe Mountain Wildlife Center Coordinator that the Center shall assist the applicant in providing rehabilitative treatment for the wildlife to be held pursuant to license; or
   c. A typed, signed statement from a licensed, practicing veterinarian that the veterinarian shall be reasonable available to render veterinary services requested by the licensee as necessary to facilitate rehabilitation of wildlife. Responsibility for

expenses incurred in the treatment shall be determined by the veterinarian and the licensee.

6. Applications for renewal of wildlife rehabilitation licenses without change of species or location or design of facilities may reference supportive materials submitted previously, and replicate copies of such materials need not be submitted with the application for renewal.

**E.** The Department may return without denial or approval any application lacking information required by subsection (D). Each returned application shall be accompanied by a letter identifying the information the applicant failed to provide. When missing information can be provided verbally, the Department may handle the corrections by telephone, noting where such changes have been made, and the date and source thereof. The approval or denial period shall be restarted at day one on receipt of the completed application.

**F.** Licensees may at any time during the license period make a written request to amend their licenses to add or delete agents or premises or to obtain authority to rehabilitate additional taxa of wildlife, provided the requests meet the requirements of subsections (D)(1) through (D)(3) of this rule. The Department shall approve or deny a request within 60 days by the procedures prescribed in subsection (E).

**G.** Licensees may accept donations to defray expenses or to provide materials or facilities essential to the licensed activity.

**H.** Capture, removal, transport and release of wildlife pursuant to this rule shall be accomplished in a manner which is least likely to cause injury to the affected wildlife.

**I.** A licensee authorized to rehabilitate big game mammals, golden eagles, Gila monsters, twin-spotted rattlesnakes, banded rock rattlesnakes or endangered or threatened species or threatened native wildlife as defined in R12-4-401 shall, within 24 hours of receiving any such individual, contact the Department for instructions in handling that animal. While awaiting instructions, emergency veterinary care shall be provided as necessary.

**J.** Except when the Department has authorized possession for a longer period, raptors shall not be possessed longer than 180 days; other wildlife shall not be possessed longer than 90 days. Any request to hold wildlife in excess of this period shall be submitted to the Department in writing. The Department may require the licensee to provide a typed, signed statement from a licensed veterinarian setting forth the medical reasons why such extension is necessary. The Department shall grant or deny a request for extension within ten days of receipt of the request or the veterinarian's statement. The licensee may continue to hold the specified wildlife while the Department considers the request. A denial of request for extension shall be in writing and shall include specific, time-dated directions on disposition of the animal.

**K.** Wildlife may be held pursuant to a wildlife rehabilitation license after reaching a state of restored health only for such time as is reasonably necessary to make humane disposition of the wildlife but in no case for longer than has been authorized pursuant to subsection (J) of this rule. Rehabilitated wildlife shall be released at an ecologically appropriate time of year and into a habitat suitable to sustain it:

1. In the same geographic area as the animal was originally obtained, except that birds may be released at any location statewide within the normal range of that species in ecologically suitable habitat; or
2. At such area as has been designated by the Department; and
3. Without immediate threat to the animal of injurious contact with humans.

**L.** Unless otherwise stipulated in the license, all wildlife that is euthanized or which otherwise dies while held pursuant to license shall within 30 days of death be disposed of by burial or incineration, except that all carcasses of endangered or threatened species or threatened native wildlife or golden eagles shall be transferred to the Department.

**M.** A copy of the approved license and application shall accompany any shipment or transport of wildlife pursuant to this rule and shall be available for inspection at each of the premises authorized by the license.

**N.** Licensee shall keep a current log showing the date of acquisition, location and disposition of all wildlife held pursuant to their license.

**O.** On or before the 15th day of January each year, each licensee shall file a written report on activities pursuant to license for the previous calendar year. The report shall be made on a form available from the Department. The following information shall be provided in the written report:

1. Name, address and phone number of the licensee and of all agents; and
2. The permit or license number of any federal permits or licenses that relate to any rehabilitative function performed by the licensee; and
3. An itemized list of each animal held pursuant to license during the calendar year for which activity is being reported. For each animal held by the licensee or agent, the itemization shall include the: name of the species; condition that required rehabilitation; source, location and date of acquisition; if reasonable determinable, age class at acquisition; status at disposition or end-of-year relative to the condition requiring rehabilitation; and method, place and date of disposition. A copy of the rehabilitator's federal permit report of activities related to federally protected wildlife shall satisfy this reporting requirement for federally protected wildlife.

**P.** Licensees shall participate in one of the following during the license period:

1. Eight hours or more of continuing education sessions on wildlife rehabilitation offered by the Department at no fee. The Department shall provide each licensee a minimum of 30 calendar days' notice of such sessions.
2. Eight hours or more of continuing education sessions on wildlife rehabilitation offered by an accredited university or college; the National Wildlife Rehabilitators Association, R.R. 1, Box 125 E, Brighton, Illinois 62012; or the International Wildlife Rehabilitation Council, P.O. Box 3007, Walnut Creek, California 94598.

**Q.** Written authorization shall be obtained from the Department pursuant to subsection (F) before any agent is designated. The agent shall have this authorization in possession while in possession of wildlife. The licensee shall be responsible for the acts of the agent insofar as they fall within the framework of this rule, and the rehabilitation license may be suspended or revoked by the Department for violation of this rule by the agent.

**R.** Wildlife rehabilitation licenses expire on December 31 of the second year following the date of issuance of the license.

**S.** Wildlife rehabilitation licenses are subject to the provisions of R12-4-409 and R12-4-428.

**T.** This rule is effective January 1, 1995.

**Historical Note**

Adopted effective January 4, 1990 (Supp. 90-1).
Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-424. White Amur Stocking License**

**A.** For the purpose of this rule:
1. "Closed aquatic system" means any body of water, canal system, series of lakes, canals, or ponds that constitutes a body of water where triploid white amur are prevented from ingress or egress by any natural or man-made barrier as determined by the Department.
2. "Triploid" means a species which has 3N chromosomes.

**B.** A white amur stocking license may allow the importation, transportation, stocking, and possession of triploid white amur *(Ctenopharyngodon idellus).* The Department may make stipulations on what the license will allow, based on evaluation of the application. A white amur stocking license shall be obtained for each closed aquatic system, or for each separately managed portion thereof, where stocking is to occur.

**C.** In addition to the requirements in A.R.S. § 17-317, the following criteria are requisite to approval of a white amur stocking application.
1. The proposed stocking site shall meet the definition for "closed aquatic system".
2. The purposes of the stocking shall be:
   a. To control aquatic weeds which interfere with recreational, domestic, municipal, agricultural, or industrial use of water, or which impair water quality; or
   b. For sale from licensed fish farms.
3. Applications for stocking determined by the Department to be in watersheds containing "threatened native wildlife" as defined in R12-4-401 shall be accompanied by a written proposal which shall address biological ramifications of the introduction. A determination by the Department that negative impact on Arizona wildlife may result from issuance of the permit shall be grounds for denial of a permit. The Department shall notify the applicant within 30 calendar days of receipt of the application if the written proposal is required to process the application. The proposal shall include:
   a. The purpose of the introduction,
   b. Expected benefits,
   c. Possible negative impacts,
   d. Evaluation of the ecology of "threatened native wildlife" species identified by the Department as the reason for requiring the proposal,
   e. Evaluation of potential displacement of "threatened native wildlife" identified by the Department,
   f. Evaluation of disease potential,
   g. Method for post-introduction evaluation of status and impacts.

**D.** Application for a white amur stocking license shall be made on forms provided by and available from any Department office. When no written proposal pursuant to subsection (C), paragraph (3) of this rule is required, the Department shall issue the license or deny the application within 30 calendar days of receiving the application. When a written proposal is required pursuant to subsection (C), paragraph (3) of this rule, the Department shall issue the license or deny the application within 30 calendar days of receiving the proposal. The following information shall be provided by the applicant on the form:
1. Name and address;
2. Name and address of business and title of the position held by the applicant, if applicable;
3. Name and address of suppliers;
4. Name and legal description of the aquatic system to be stocked;
5. Drainage;
6. Purpose of stocking;
7. Planned stocking date;
8. Number and size of triploid white amur to be stocked;
9. Signature.

**E.** All restocking of white amur shall be reported to the Department on forms provided by the Department prior to restocking. The following information shall be provided by the licensee on the form:
1. Name and address of the licensee as shown on the current white amur stocking license,
2. Name and address of suppliers,
3. Name and legal description of aquatic system to be restocked,
4. Drainage,
5. Purpose of restocking,
6. Planned restocking date,
7. Number and size of triploid white amur to be restocked,
8. Signature.

**F.** All shipments of white amur shall be accompanied by certification issued by the U.S. Fish and Wildlife Service verifying triploidy, and a copy shall be provided to the Department prior to stocking.

**G.** White amur stocking licenses are subject to the provisions of R12-4-409.

**H.** This rule is effective January 1, 1995.

**Historical Note**

Adopted as an emergency effective July 5, 1988, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 88-3). Correction, Historical Note, Supp. 88-3, should read, "Adopted as an emergency effective July 15, 1988..."; readopted and amended as an emergency effective October 13, 1988, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 88-4). Emergency expired. Readopted as an emergency effective January 24, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-1). Emergency expired. Former Section R12-4-219 amended and adopted as a permanent rule and renumbered as Section R12-4-424 effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-425. Restricted live wildlife lawfully possessed without license or permit prior to the effective date of Article 4**

**A.** Any person lawfully possessing restricted live wildlife without license or permit from the Department prior to the effective date of this rule may continue to possess this wildlife and to use this wildlife for any purpose that was lawful prior to the effective date of this rule, and no special license shall be required provided:
1. The person notifies the Department's Phoenix office in writing within 30 calendar days of the effective date of this rule of the restricted live wildlife held, including the number of individuals of each species and the purpose for which it is used; or
2. The person maintains documentation of the restricted live wildlife held, including the number of individuals of each species and the purpose for which it is used. Documentation shall be notarized and dated within 30 calendar days of the effective date of this rule in order to be valid.

**B.** Written notification or documentation required in subsection (A) shall contain the name and address of the person possessing the restricted live wildlife and the location where the wildlife is held. The Department shall acknowledge receipt of notification in writing. Those persons maintaining their own documentation shall make it available for inspection upon request of a game ranger.

**C.** Wildlife possessed pursuant to this rule may be disposed of only by the following methods:

1. Exportation;
2. Within Arizona, to a holder of a special license, when that special license authorizes possession of the species involved;
3. Euthanization;
4. As otherwise directed by the Department.

**D.** This rule does not apply to desert tortoises, which are exempted pursuant to R12-4-407.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2).

**R12-4-426. Expired**

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Rule expired December 31, 1989; text rescinded (Supp. 93-2).

**R12-4-427. Rehabilitation Exemption**

**A.** Injured, orphaned, or otherwise debilitated live wildlife as listed below, not including eggs, and not including threatened native wildlife as defined in R12-4-401, may be possessed, provided with rehabilitative care, and released to the wild with no special license, provided that no more than 25 individual animals shall be possessed simultaneously in the aggregate and no individual animal shall be possessed for more than 60 consecutive calendar days.
1. The order Passeriformes, passerine birds;
2. The order Columbiformes, doves;
3. The family Phasianidae, quail, pheasant, partridge, and chukars;
4. The order Rodentia, rodents;
5. The order Lagomorpha, hares and rabbits.

**B.** A hunting license shall not be required to take wildlife subject to this rule, but the wildlife may be taken only by hand or by hand-held implement.

**C.** The exemptions granted by this rule shall not apply to any individual who, by his or her own action, has unlawfully injured or orphaned the wildlife.

**D.** All wildlife held pursuant to this rule shall be released when rehabilitated, within the 60-day period, into habitat suitable to sustain them, as close as possible to the same geographic area from which they were originally taken. Wildlife not suitable for release to the wild within 60 days shall be given to a licensed rehabilitator or licensed veterinarian, or application must be made for a wildlife holding permit pursuant to R12-4-417, or wildlife shall be humanely killed.

**E.** This rule does not exempt any person from the requirements of federal law.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective January 1, 1995; filed in the Office of the Secretary of State December 9, 1994 (Supp. 94-4).

**R12-4-428. Captivity standards**

**A.** All wildlife held pursuant to a special license shall be kept in as humane a manner as the licensed purpose allows, to safeguard and protect the interests of the wildlife held. Licensees subject to the provisions of this rule shall comply with the minimum standards for humane treatment prescribed by this rule. The term "animal" as used in this rule means any wildlife held pursuant to a special license, unless otherwise indicated.

**B.** All facilities shall meet the following minimum standards.
1. The facility shall be constructed of such material and be of such strength as is appropriate for the nature of the animal held. The facility shall be properly braced and constructed of material of sufficient strength to resist any force the animal may be capable of exerting against it. The facility shall be constructed in such a manner as to reasonably prevent the animal's escape or the entry of unauthorized persons or animals. The housing facility shall be structurally sound and shall be maintained in good repair in order to protect the animals held from injury and to facilitate the humane practices prescribed by this rule.
2. When required to comply with related provisions of this rule, there shall be safe, reliable and adequate electric power to the facility. All electric wiring shall be constructed and maintained pursuant to applicable governmental building codes. Such electrical construction and maintenance shall be sufficient to assure that no animal has direct contact with any electrical wiring or electrical apparatus and is fully protected from any possibility of shock or electrocution from any such electric conducting materials.
3. Every animal shall be supplied with sufficient potable water to meet its needs. If potable water is not accessible to the animal at all times, it shall be provided as often as necessary for the health and comfort of the animal, and the licensee shall ensure that the level of available water is monitored once daily or more often as the needs of the animal dictate. All water receptacles shall be kept in clean and sanitary condition.
4. Food shall be wholesome, palatable and free from contamination, and of sufficient appeal, quantity and nutritive value to maintain each animal held in good health. Each animal's diet shall be prepared based upon the nutritional needs and preferences of the animal with consideration for the age, species condition, size and type of the animal, and all veterinary directions or recommendations in regard to diet. The quantity of food supplied to each animal shall be sufficient to meet its needs and keep it in good health. Each animal shall be fed as often as its needs dictate, taking into consideration hibernation, veterinary treatment or recommendation, normal fasts or other professionally accepted humane practices. The licensee shall ensure that the level of available food for each animal is monitored once daily, except for those periods of time where professionally accepted humane practices dictate that the animal not consume any food during the entire day. Food and food receptacles, if used, shall be sufficient in quantity and accessible to all animals in the facility and shall be placed to minimize potential contamination. Food receptacles shall be kept clean and sanitary at all times. Any self-feeding food receptacles shall function properly and the food they provide shall not be subject to deterioration, contamination, molding, caking, or any other process which would render such food unsafe or unpalatable for the animal to be fed. Appropriate means of refrigeration shall be provided for supplies of perishable animal foods.
5. The facility shall be kept sanitary and regularly cleaned as the nature of the animal requires and allows. Adequate provision shall be made for the removal and disposal of animal waste, food waste, unusable bedding materials, trash, debris and dead animals not intended for food. The facility shall be maintained to minimize the potential of vermin infestation, disease, and unseemly odors. Excreta shall be removed from the primary enclosure facility as often as necessary to prevent contamination of the animals and to minimize hazard of disease and to reduce unseemly odors. The sanitary condition of the facility shall be monitored by the licensee at least daily. When the facility is cleaned by hosing, flushing or the introduc-

tion of any chemical substances, adequate measures shall be taken to ensure the animal has no direct contact with any chemical substance and is not directly sprayed with water, steam or chemical substances or otherwise wetted involuntarily.

6. A sanitary and humane method shall be provided to rapidly eliminate excess water from the facility. If drains are utilized, they shall be properly constructed and kept in good repair to avoid foul odors and installed so as to prevent backup or accumulation or debris or sewage.
7. No animal shall be exposed to any human activity or environment not intended by the special license which may have an inhumane or harmful affect upon the animal.
8. Facilities shall not be constructed or maintained in proximity to any physical condition which may give rise to any health threat to the animal including, but not limited to, trash or garbage collection sites and/or pools of standing water. All persons caring for the animals shall maintain themselves in a sufficiently clean condition when dealing in or around the animal so as to minimize any threat to the health of the animal.
9. All animals housed in the same facility or within the same enclosed area shall be compatible and shall not pose a substantial threat to the health, life or well-being of any other animal in the same facility or enclosure, whether or not the other animals are held pursuant to special license. This shall not apply to live animals placed as food items in the enclosures.
10. Facilities for the enclosure of animals shall be constructed and maintained to provide sufficient space to allow each animal adequate freedom of movement to make normal postural and social adjustments. The facility area shall be large enough and constructed in such a manner to allow the animal proper and adequate exercise as is characteristic to each animal's natural behavior and physical need. Facilities for digging or burrowing animals shall have secure safe floors below materials supplied for such digging or burrowing activity. Animals which naturally climb shall be provided with safe and adequate climbing apparatus. Animals which naturally live in an aquatic environment shall be supplied with sufficient access to safe water so as to meet their aquatic behavioral needs.
11. Licensees shall ensure that a sufficient number of properly trained personnel are utilized to meet all the humane husbandry practices set forth in this rule. The licensee shall be responsible for the actions of all animal care personnel and all other persons coming in contact with the animals.
12. The facility and holding environment shall be structured to reasonably promote the psychological well-being of any primate held pursuant to a special license.
13. Licensees, except holders of wildlife hobby licenses issued pursuant to R12-4-419 possessing fewer than 25 birds, and except for licensees in possession of animals for less than one year, shall designate a veterinary doctor licensed to practice in the State of Arizona as the primary treating veterinarian for each individual species of animal to be held pursuant to any special license issued. The licensee shall ensure that all animals in their care receive proper, adequate and humane veterinary care as the needs of each animal dictate. Each animal held for one year or more and each facility used shall be inspected by the attending veterinarian at least once every year. Every animal shall receive veterinary care whenever it appears that such animal is ill, wounded, diseased, infected by parasites or behaving in a substantially abnormal manner, including but not limited to exhibiting loss of appetite or disinclination to normal physical activity. All medications, treatments and other directions prescribed by the attending veterinarian shall be properly administered by the licensee. No prescription medicine or medical treatment shall be administered by any licensee unless under the direction of a veterinarian.
14. Any animal which is suspected or diagnosed to harbor any infectious or transmissible disease, whether or not the animal is held by special license, shall be isolated immediately upon such suspicion or diagnosis from any animal to whom such disease could be transmitted. Such isolated animal shall continue to be kept in a humane manner and facility as required to this rule. Subsequent to the presence of an animal with an infectious or transmissible disease in any animal facility, whether or not the animal is held by special license, such facility shall be reasonably sanitized so as to reasonably eliminate the chance of other animals being exposed to infection. Such sanitation procedures may include, but not necessarily be limited to, the washing of facilities or animal-related materials with hot water and appropriate antibacterial chemical agents as well as appropriate soaps or detergents; the appropriate application of steam under pressure; and the replacement of gravel, sand, water, food and/or dirt. All residue of chemical agents utilized in such sanitation process shall be reasonably eliminated from the facility before any animal is returned thereto. Parasites and avian and mammalian pests shall be controlled and eliminated so as to ensure the continued health and well-being of all animals.

**C.** All indoor facilities shall meet the following standards in addition to those set forth in subsection (B).

1. Heating and cooling facilities shall be supplied sufficient to regulate the temperature to protect the animals from extremes of temperature as the nature of the wildlife requires and to provide a healthful and humane living environment and prevent discomfort to the animal. The ambient temperature shall not be allowed to fall below nor rise above temperatures compatible with the health, comfort and humane care of any animal.
2. Indoor facilities shall be adequately ventilated by natural or mechanical means to provide for the healthful and humane keeping of any animal and prevent the discomfort of any animal. Such facility shall be provided with fresh air, either by means of windows, doors vents, fan or air conditioning sufficient to meet the humane needs of any animal and shall be constructed to minimize drafts, odors and moisture condensation.
3. Indoor facilities shall have lighting appropriate to the nature of the animals being kept therein by either natural or artificial means or both. Lighting shall be of good quality, distribution and duration as appropriate for the needs and nature of the animals held. Lighting shall be utilized in regular cycles as the animal's needs may dictate. Lighting shall be available which is of uniform distribution and sufficient intensity to permit routine inspection and cleaning of the facility. Lighting shall be designed to protect the animals from excessive or otherwise harmful aspects of illumination.

**D.** All outdoor facilities shall meet the following standards in addition to those set forth in subsection (B).

1. If sunlight is likely to cause overheating or discomfort of any animal, sufficient shade by natural or artificial means shall be provided to allow all animals kept outdoors to

humanely protect themselves from any harmful affects of direct sunlight.

2. Sufficient natural or artificial shelter appropriate to humanely protect animals from normally expected local climatic conditions through the year shall be provided for all animals to prevent any discomfort or harm to the animals. No animal shall be exposed to any climatic condition which is potentially harmful to such animal. Individual animals shall be acclimated to outdoor climatic conditions before they are housed in any outdoor facility or otherwise exposed to the extremes of climate.

**E.** When animals must be handled, they shall be handled in an expeditious and careful manner to ensure no unnecessary discomfort, behavioral stress or physical harm to such handled animal. Animals transported shall be transported in an expeditious, careful, and humane fashion. During periods of transport, animals shall be made as humanely secure as reasonably possible. No animal shall be transported in any manner that poses a substantial threat to the life, health, or behavioral well-being of the animal. All transportation facilities and services utilized in regard to animals shall provide for the basic humane needs of each animal during periods where the animal is held in a transportation facility, including but not necessarily limited to providing the animal with adequate food, adequate water, adequate sanitary conditions, adequate ventilation, and any medication as prescribed by the attending veterinarian. If any animal is placed on public exhibit or display, such animal shall be handled in a manner minimizing the risk of harm to members of the public and to the animal itself; minimization of risk shall include but not necessarily be limited to sufficient distance existing between the animal and the viewing public to assure the safety of both the public and the animals. Any restraint used on any animal shall be humane in nature and not likely in either its design or use to cause physical harm or discomfort to the restrained animal except when discomfort is necessary to control the animal due to its size or strength.

**F.** The Department may impose additional requirements in regard to facilities to be utilized for the keeping of any animal as the nature and the needs of the particular animal and public safety dictate. Such additional special license facility requirements shall be set forth in writing by the Department at the time of the issuance of the special license. Any such notice of additional requirements for housing facilities shall specify the reason necessitating such additional measures.

**Historical Note**

Adopted effective April 28, 1989 (Supp. 89-2).

## ARTICLE 5. BOATING AND WATER SPORTS

### R12-4-501. Boating and Water Sports Definitions

**A.** In addition to the definitions provided in A.R.S. § 5-301, the following definitions apply to this Article unless the context otherwise requires:

1. "Aids to navigation" means buoys, beacons, or other fixed objects placed on, in, or near the water to mark obstructions to navigation or to direct navigation through channels or on a safe course.
2. "Bill of sale" means a written agreement transferring ownership, and including: the name of the buyer and seller; the manufacturer of the watercraft sold, if known; the hull identification number, unless exempted by R12-4-505; the purchase price and sales tax paid, if any; and the signature of the seller.
3. "Boats keep out" means an operator or user of watercraft, waterskis, surfboards, or similar contrivances shall not enter.
4. "Controlled-use marker" means an anchored or fixed marker on the water, shore, or on a bridge that controls the operation of watercraft, water skis, surfboard, or similar contrivances.
5. "Homemade watercraft" means a watercraft which was not fabricated or manufactured for resale and to which a manufacturer has not attached a hull identification number. A watercraft assembled from a kit, or constructed from an unfinished manufactured hull, is a "homemade watercraft" if not already assigned a hull identification number by the manufacturer.
6. "Hull identification number" means a number assigned to specific watercraft by the manufacturer or by a government jurisdiction as prescribed by the U.S. Coast Guard.
7. "Letter of gift" means a document, transferring ownership of a watercraft, signed by the previous owner, stating that the watercraft is a gift and listing the name of both the previous and the new owner, the name of the manufacturer of the watercraft if known, and the hull identification number, unless exempted by R12-4-505.
8. "Livery" means a business authorized to rent watercraft without an operator pursuant to A.R.S. § 5-371.
9. "No ski" means a person shall not be towed on water skis or similar devices.
10. "No wake" means wakeless speed, as defined by A.R.S. § 5-301.
11. "Owner" in reference to a watercraft means a person who claims lawful possession of a watercraft by virtue of legal title or equitable interest, which entitles that person to possession.
12. "Regatta" means an organized water event of limited duration which affects the use of waterways by the public, which is conducted according to a prearranged schedule, for which a lawful jurisdiction has issued a permit, but excluding fishing tournaments as addressed in A.R.S. § 17-347.
13. "Registered owner" means the person or persons to whom a watercraft is currently registered by any jurisdiction.
14. "Regulatory marker" means a waterway marker placed on, in, or near the water to indicate the presence of a danger or a restricted or controlled-use area or to convey general information and directions.
15. "Sound level" means the noise level measured in decibels on the A-weighted scale of a sound level instrument that conforms with the requirements set forward by the American National Standards Institute in Specifications for Sound Level Meters.
16. "Staggered registration" means the system of renewing watercraft registrations that expire in accordance with the schedule contained in R12-4-504.
17. "State of principal use" means the state on whose waters the vessel is used or to be used most during the calendar year.
18. "Use" in reference to a watercraft means any watercraft underway, moored, anchored, or beached on the waterways of the state.
19. "Watercraft" means a boat or other floating device of rigid or inflatable construction designed to carry people or cargo on the water that is propelled by machinery, oars, paddles, or wind action on a sail. Exceptions are sea-planes, makeshift contrivances constructed of innertubes, or other floatable materials which are not propelled by machinery, personal flotation devices worn or held in hand, and other objects used as floating or swimming aids. For the purpose of registration only, "watercraft"

does not include nonmotorized inflatable watercraft which are 12 feet or less in length.

20. "Watercraft agent" means a person authorized by the Department to collect appropriate fees for the registration and numbering of watercraft.
21. "Watercraft number" means the registration number issued by the Department under A.R.S. § 5-321.
22. "Watercraft registration" means the validated certificate of number and validating decals issued by the Department.

**Historical Note**

Editorial correction subsection (A) (Supp. 78-5). Former Section R12-4-83 renumbered as Section R12-4-501 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-501 renumbered to R12-4-515, new Section R12-4-501 adopted effective May 27, 1992 (Supp. 92-2). Amended effective November 7, 1996 (Supp. 96-4).

**R12-4-502. Application for Watercraft Registration**

**A.** A person shall apply for watercraft registration pursuant to A.R.S. § 5-321 using a form provided by the Department. The applicant shall provide the following information for registration of all watercraft except homemade watercraft, which are addressed in subsection (B):

1. Type of watercraft and propulsion type;
2. Overall length of craft;
3. Manufacturer's name, if known;
4. Year built or model year, if known;
5. Hull identification number;
6. Hull material;
7. Fuel type;
8. Category of use;
9. Watercraft number previously issued for the watercraft, if any;
10. State of principal use;
11. Name, mailing address, and date of birth of each owner. To simplify the description of joint ownership when a watercraft is owned by more than 1 person, the applicant shall indicate ownership by use of 1 of the following methods:
    a. Where ownership is joint tenancy with right of survivorship or community property with right of survivorship, the applicant shall use "and/or" between the names of the owners. To transfer registration of the watercraft, each party shall provide a signature if both are living. Upon legal proof of the death of either party, the living party may transfer registration of the watercraft upon the signature of the living party.
    b. Where ownership is a tenancy in common the applicant shall use "and" between the names of the owners. To transfer registration of the watercraft, each party shall provide a signature. In the event of the death of any party, the interest of the deceased party must be handled through probate proceedings.
    c. Where the ownership is joint tenancy with an express intent that either of the owners have full authority to transfer registration, the applicant shall use "or" between the names of the owners. As a condition of transferring registration as just indicated above, each owner must sign the application. To transfer registration, either party's signature is sufficient for transfer.

**B.** The applicant shall provide the following information for registration of homemade watercraft, using the same ownership designations specified in subsection (A). The owner shall sign the application and have it notarized unless it is signed in the presence of a Department employee.

1. Type of watercraft and propulsion type;
2. Overall length of craft;
3. Year built;
4. Hull material;
5. Fuel type;
6. Category of use;
7. Name, mailing address, and date of birth of each owner;
8. State of principal use;
9. Whether the watercraft was assembled from a kit or rebuilt from a factory or manufacturer's hull;
10. Hull identification number, if assigned.

**C.** In accordance with A.R.S. § 5-321, the applicant shall submit with the application for registration a receipt for use tax paid from the Arizona Department of Revenue unless:

1. The applicant is exempt from use tax as provided in 15 A.A.C. 5; or
2. The applicant is transferring the watercraft from another jurisdiction to Arizona without changing ownership; or
3. Sales or use tax paid is shown on the bill of sale or receipt submitted by the applicant; or
4. The applicant submits a notarized affidavit of exemption stating that the acquisition of the watercraft was for rental or resale purposes.

**D.** To obtain registration as a commercial watercraft under A.R.S. § 5-322(H), the owner shall provide evidence of payment of the *ad valorem* property tax under the provisions of Article 9, Section 16 of the Arizona Constitution; the tax privilege license number; and the business name, address, and telephone number.

**E.** To obtain watercraft dealer registration under A.R.S. § 5-322(G), the applicant shall be a business offering watercraft for sale, or a watercraft manufacturer registered by the U.S. Coast Guard. The applicant shall provide the following information on a form available from the Department. The Department shall issue the number of certificates and decals specified, or deny issuance, within 30 calendar days of receiving the application.

1. All business names used for the sale or manufacture of watercraft in Arizona, and the mailing address and telephone number for each business to be issued watercraft dealer registrations.
2. Tax privilege license number.
3. U.S. Coast Guard manufacturer identification code, if applicable.
4. The total number of certificates of number and decals to be issued.
5. Name, address, signature, and phone number of the owner or manager of the principal business.

**F.** An applicant registering a watercraft which has never previously been registered by any jurisdiction shall submit the following:

1. A bill of sale.
2. A letter of gift, if the watercraft was acquired as a gift instead of by purchase. The previous owner shall state in the letter of gift that the watercraft was never previously registered; or
3. Watercraft may be registered without either a bill of sale or a letter of gift or compliance with R12-4-507 only if the owner submits a form either notarized or signed in the presence of a Department employee, attesting to subsection (3)(a), (b), or (c) below:
    a. That the watercraft was manufactured prior to 1972, that it is 12 feet or less in length, and that it is not

propelled by machinery other than an outboard engine; or

b. That the watercraft was previously owned by the applicant in a state that required neither registration nor titling; or

c. That the watercraft was previously owned by the applicant in a state that did require registration and titling, but that the applicant did not register or title the watercraft because the watercraft was not used; and

d. The applicant shall provide all of the following on the form:

i. Full name and mailing address of each owner;
ii. Type of watercraft and propulsion type;
iii. Overall length of craft;
iv. Manufacturer's name, if known;
v. Year built or model year, if known;
vi. Hull identification number, unless exempted by R12-4-505;
vii. Hull material;
viii. Fuel type;
ix. Horsepower of engine, if any.

**G.** An applicant transferring registration of an Arizona-registered watercraft to a new owner shall surrender to the Department the original certificate of number assigned by the registered owner, or a bill of sale, or letter of gift. If the bill of sale or letter of gift is not signed by the registered owner, the Department shall not transfer registration until it has received a release of interest from the registered owner or until the applicant has complied with the procedures prescribed in R12-4-507. The only exception is if the watercraft has not been registered within the past 5 years, was manufactured prior to 1972, and is 12 feet or less in length and is not propelled by machinery other than an outboard engine, in which case the applicant shall comply with the same requirements prescribed in subsection (F)(3)(a) and (d).

**H.** If ownership has been transferred from a registered owner in a manner other than sale or gift of the watercraft, or pursuant to subsection (A)(11), the applicant shall present legal documentation to prove such transfer of ownership.

**I.** An applicant for registration of a watercraft registered in another jurisdiction shall surrender 1 of the following to the Department in order to obtain registration:

1. Original registration documentation by the other jurisdiction to the same applicant.
2. Original registration documentation by the other jurisdiction showing that ownership has been transferred to the applicant.
3. When the other jurisdiction's registration documentation does not include any area for showing transfer of ownership, the applicant shall submit a bill of sale or letter of gift from the registered owner to the applicant with the other jurisdiction's original registration documentation.
4. The applicant shall submit 1 of the following if registration documentation has been lost:
   a. A letter from the issuing jurisdiction verifying that the registered owner in that jurisdiction is the same person shown as the seller or giver on the bill of sale or letter of gift submitted to the Department.
   b. A letter from the issuing jurisdiction verifying that the registered owner in that jurisdiction is the same person that is applying for registration in Arizona.
5. Proof of compliance with R12-4-507.

**J.** An applicant for registration of a watercraft titled in another jurisdiction shall surrender 1 of the following to the Department in order to obtain registration:

1. The applicant's original title, or documentation from the lien holder lawfully holding such title, with a copy of the title.
2. When ownership has transferred, the original title showing transfer of ownership to the Arizona applicant.
3. The applicant shall submit 1 of the following if the title to the watercraft has been lost:
   a. A letter from the issuing jurisdiction verifying that the titled owner in that jurisdiction is the same person shown as the seller or giver on the bill of sale or letter of gift submitted to the Department.
   b. A letter from the issuing jurisdiction verifying that the titled owner in that jurisdiction is the same person that is applying for registration in Arizona.
4. Proof of compliance with R12-4-507.

**K.** A person shall not apply for or obtain a watercraft registration by making a false statement or providing false information on any application or written instrument submitted to the Department.

**L.** The Department shall issue watercraft registrations within 30 calendar days of receiving valid application and documentation as required by this rule, whether from the applicant or from a watercraft agent pursuant to R12-4-509. An application is not considered valid if the Department receives legal documentation that legal action may affect ownership of the watercraft.

**M.** All watercraft registrations and supporting documentation are subject to verification by the Department and to the requirements of R12-4-505. The Department may require a watercraft to be presented for inspection to verify the information provided by an applicant. See R12-4-506.

**Historical Note**

Former Section R12-4-84 renumbered as Section R12-4-502 without change effective August 13, 1981 (Supp. 81-4). Amended effective January 2, 1985 (Supp. 85-1). Former Section R12-4-502 repealed, new Section R12-4-502 adopted effective May 27, 1992 (Supp. 92-2). Amended effective November 7, 1996 (Supp. 96-4).

**R12-4-503. Renewal of Watercraft Registration**

**A.** The Department shall mail renewal notices to the address of the watercraft owner as shown on the certificate of number, 6 weeks prior to the last day of the month of expiration established under R12-4-504. It is the responsibility of the owner to ensure that renewal is achieved whether or not the notice is received.

**B.** In order to renew registration, the applicant shall submit the registration fee required by A.R.S. Title 5, Chapter 3, and the renewal notice provided by the Department. In the absence of the renewal notice, the registered owner shall present 1 of the following:

1. Current or prior certificate of number;
2. One of the following:
   a. Valid driver's license;
   b. Valid Arizona Motor Vehicle Division identification card;
   c. Passport.

**C.** The Department shall renew watercraft registration within 30 calendar days of receiving the valid application for renewal. The Department shall mail the renewal to the address of record unless the applicant has achieved renewal in person or unless there is a notarized request from the registered owner to mail it to another address.

**Historical Note**

Former Section R12-4-85 renumbered as Section R12-4-503 without change effective August 13, 1981 (Supp. 81-

4). Former Section R12-4-503 renumbered to R12-4-519, new Section R12-4-503 adopted effective May 27, 1992 (Supp. 92-2). Amended effective November 7, 1996 (Supp. 96-4).

**R12-4-504. Staggered Watercraft Registration Schedule; Penalty for Late Registration**

**A.** All new watercraft registrations shall expire 12 months after issue.

**B.** Upon renewal of resident or non-resident pleasure use, and Indian or soldier's tax-exempt use, registrations shall expire on the last day of the month indicated by the last two numeric digits of the watercraft number, as shown in the following table. The first renewal period shall be no less than 7 months and no longer than 18 months.

| *Last two numeric digits of watercraft number* | | | | | | | | | *Expiration month* |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | December |
| 01 | 13 | 25 | 37 | 49 | 61 | 73 | 85 | 97 | January |
| 02 | 14 | 26 | 38 | 50 | 62 | 74 | 86 | 98 | February |
| 03 | 15 | 27 | 39 | 51 | 63 | 75 | 87 | 99 | March |
| 04 | 16 | 28 | 40 | 52 | 64 | 76 | 88 | | April |
| 05 | 17 | 29 | 41 | 53 | 65 | 77 | 89 | | May |
| 06 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | | June |
| 07 | 19 | 31 | 43 | 55 | 67 | 79 | 91 | | July |
| 08 | 20 | 32 | 44 | 56 | 68 | 80 | 92 | | August |
| 09 | 21 | 33 | 45 | 57 | 69 | 81 | 93 | | September |
| 10 | 22 | 34 | 46 | 58 | 70 | 82 | 94 | | October |
| 11 | 23 | 35 | 47 | 59 | 71 | 83 | 95 | | November |

**C.** Upon renewal of registrations issued to dealers or manufacturers pursuant to A.R.S. § 5-322(G), or for governmental use, registration shall expire on October 31.

**D.** Upon renewal of registrations issued to liveries or for other commercial use, registration shall expire on November 30.

**E.** The entire registration fee and license tax shall be collected for a late registration, plus a penalty fee of $5, except as exempted by A.R.S. § 5-321(H), or unless the expiration date fell on a Saturday, Sunday, or state holiday, and the registration is renewed before the close of business on the next working day. The penalty fee shall not be collected for renewals mailed prior to the expiration date, as evidenced by the postmark.

**Historical Note**

Amended effective December 5, 1978 (Supp. 78-6). Amended effective March 6, 1980 (Supp. 80-2). Former Section R12-4-86 renumbered as Section R12-4-504 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-504 repealed, new Section R12-4-504 adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-505. Hull Identification Numbers**

**A.** The Department shall not register watercraft without a hull identification number.

**B.** The Department shall assign a hull identification number to a watercraft with a missing or improper hull identification number only when the Department determines that:

1. A hull identification number has not been fraudulently removed or altered, unless the application is made by a governmental agency and is accompanied by an order of forfeiture or order of seizure or other civil process;
2. The missing or improper hull identification number was caused by error of the manufacturer or a government jurisdiction or failure of a previous owner of a watercraft to comply with this rule, or because the watercraft is a "homemade watercraft" as defined in R12-4-501.

**C.** The Department shall assign or deny assignment of a hull identification number within 30 days of receipt of a valid application, described in R12-4-502.

**D.** The Department shall accept a bill of sale presented with a missing or improper hull identification number for registration purposes only if:

1. It matches the hull identification number or lack of hull identification number on the watercraft;
2. A hull identification number is issued by the Department under subsection (B).

**E.** The applicant or the Department shall affix the hull identification number as follows:

1. On watercraft with transoms, to the right or starboard side of the transom within 2 inches of the top of the transom or hull/deck joint, whichever is lowest.
2. On watercraft without transoms, to the starboard outboard side of the hull, back or aft within 1 foot of the stern and within 2 inches of the top of the hull, gunwale, or hull/deck joint, whichever is lowest.
3. On catamarans and pontoon boats, on the aft crossbeam within 1 foot of the starboard hull attachment.
4. If the hull identification number would not be visible because of rails, fittings, or other accessories, affix it as closely as possible in the manner prescribed in subsection (E)(1).
5. Affix a duplicate of the visibly affixed hull identification number in an unexposed location on a permanent part of the hull.
6. Each hull identification number is to be burned, carved, stamped, embossed, molded, bonded, or otherwise permanently affixed to a non-removable part of the watercraft so that alteration, removal, or replacement would be obvious.
7. The characters of each hull identification number affixed to the watercraft are to be no less than ¼ inch in height.

**Historical Note**

Amended effective January 1, 1980 (Supp. 79-6). Former Section R12-4-87 renumbered as Section R12-4-505 without change effective August 13, 1981 (Supp. 8-4). Former Section R12-4-505 repealed, new Section R12-4-505 adopted effective May 27, 1992 (Supp. 92-2). Amended effective November 7, 1996 (Supp. 96-4).

**R12-4-506. Invalidation of Watercraft Registration**

**A.** Any watercraft registration obtained by fraud or misrepresentation shall be invalid from the date of issuance thereof.

**B.** A certificate of number and any decals issued shall be invalid when any of the following occurs:

1. Any check, money order, or other currency certificate presented to the Department for payment of watercraft registration or renewal is found to be non-negotiable;
2. Any person whose name appears on the certificate of number loses ownership of the watercraft by legal process;
3. When Arizona is no longer the state of principal use;
4. The watercraft is documented by the U.S. Coast Guard.

**C.** Certificates of number and decals invalid pursuant to subsections (A) and (B)(1) shall be returned to the Department within 15 calendar days of receiving written notification from the Department that they are invalid.

**D.** The Department shall not validate or renew an invalid watercraft registration until the reason for invalidity has been corrected or no longer exists.

**Historical Note**

Adopted effective December 4, 1984 (Supp. 84-6). Amended subsection (B) effective December 30, 1988 (Supp. 88-4). Correction, former Historical Note should read "Amended subsection (B) effective January 1, 1989, filed December 30, 1988" (Supp. 89-2). Former Section

R12-4-506 repealed, new Section R12-4-506 adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-507. Application for Registration of Abandoned or Unreleased Watercraft**

**A.** For the purpose of this rule, the following definitions shall apply unless the context otherwise requires:
1. "Abandoned watercraft" means a watercraft which has been deserted on a highway, a public street or on public or private property or waters. A watercraft left under a written or verbal repair or storage order is not an abandoned watercraft.
2. "Unreleased watercraft" means there is no release of interest from the registered owner of the watercraft.

**B.** Unless an abandoned watercraft has been reported stolen, the abandonment constitutes an assumption that the last registered owner is responsible for the abandonment of the watercraft.

**C.** The applicant shall submit the following information, when available, on a form available from the Department:
1. Hull identification number, unless exempted by R12-4-505.
2. Registration number.
3. Decal number.
4. State of registration.
5. Year of registration.
6. Name, address, and daytime phone number of the person who found the watercraft.
7. Description or address of the location where the watercraft was found.
8. Whether there is any known written or verbal agreement for storage or repair.
9. Condition of the watercraft; whether wrecked, stripped, or intact.

**D.** The Department shall attempt to determine the name and address of the registered owner and, if successful, shall send written notice of the attempt to register the watercraft by the applicant to the registered owner by certified mail, return receipt requested. Within 45 calendar days of receiving the form required by subsection (C), the Department shall advise the applicant in writing of the results, in accordance with the following:
1. If the registered owner provides written release of interest in the watercraft, the Department shall provide the applicant with the release and the applicant may then register the watercraft pursuant to R12-4-502.
2. If the registered owner declines to release interest in the watercraft, the Department shall so advise the applicant, and the Department shall not register the watercraft to the applicant unless the applicant proves ownership by other legal remedy and complies with R12-4-502.
3. If the Department cannot determine who is the registered owner of the watercraft, or if the written notice returns unclaimed, or if a period of 21 calendar days from the date of mailing passes without response from the registered owner, the Department shall advise the applicant of failure to contact the registered owner.

**E.** In order to register the watercraft when the Department has failed to contact the registered owner pursuant to subsection (D), the applicant shall:
1. Advertise twice, two weeks apart, in a newspaper of statewide general circulation in the state; if the watercraft is traceable to another state's registration, the applicant shall also advertise in the same manner in a newspaper of statewide general circulation in the state of registration. The advertised notice shall include a complete description of the watercraft, including any identifying numbers, the date and location of the watercraft's finding, the present location of the watercraft, and the means by which the applicant can be contacted. The notice shall also include a statement that the watercraft will be registered to the applicant by the Arizona Game and Fish Department if no other person can prove ownership.
2. Thirty calendar days after the second newspaper advertisement, the applicant shall submit proof of publication pursuant to this rule to the Department, in addition to following the application procedures prescribed in R12-4-502.

**Historical Note**
Adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-508. New Watercraft Exchanges**

**A.** The Department may replace registration for new watercraft never previously registered which is returned to the seller within 30 calendar days of registration, provided that the seller replaces the watercraft with a duplicate watercraft, and application for replacement registration is made to the Department within the same 30 calendar days.

**B.** In order to obtain replacement registration, the registered owner shall provide the Department with the registration for the original watercraft and with a letter signed by the seller stating that the watercraft has been replaced, and providing the hull identification numbers for both the original and the replacement watercraft and the name of both the buyer and the seller.

**C.** The Department shall issue replacement registration for the replacement watercraft with no charge in addition to the fee and license tax already paid.

**Historical Note**
Adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-509. Watercraft Agents**

**A.** The Department may authorize an agent for the purpose of issuing temporary certificates of number valid for 30 days for new watercraft only, when all of the following criteria are met:
1. The applicant's previous authority to act as a watercraft agent pursuant to A.R.S. § 5-321(E) has not been cancelled by the Department within the preceding 24 months.
2. The applicant is a business located and operating within Arizona which sells watercraft for an identified manufacturer.

**B.** Application for authorization as a watercraft agent shall be made on forms provided by the Department. The Department shall issue authorization or deny the license within 30 calendar days of receiving the application. The applicant shall provide the following:
1. Principal business or corporation name, address, and phone number;
2. If not a corporation, the full name, address, and phone number of all owners or partners;
3. Name, address and phone number of the owner or manager to be responsible for compliance with this rule;
4. Whether the applicant has previously issued certificates of number pursuant to A.R.S. § 5-321(E);
5. The storefront name, street address, type of business, name of the manager, phone number, and business hours of the location from which new watercraft are to be sold and temporary certificates of number issued;
6. The manufacturers for which watercraft are distributed;
7. Signature of the person named pursuant to subsection (B)(3).

**C.** Authorization to act as a watercraft agent is specific to the business location designated on the application and approved

by the Department. The only exception shall be when the agent is participating in a scheduled, advertised boat show for the purpose of selling watercraft.

**D.** The Department shall assign a watercraft agent with an agent number upon approval of the application, and with the forms necessary for the compliance with this rule and with the schedule of fees to be collected in accordance with A.R.S. Title 5, Chapter 3. Prenumbered temporary certificate applications provided by the Department shall not be destroyed but shall be marked "void" when necessary and returned to the Department with the monthly report required in subsection (F). The agent shall verify supplies received within seven days of receipt. The Department shall provide new supplies within 30 calendar days of receipt of the request made by an agent on forms provided for this purpose.

**E.** A watercraft agent may issue a temporary certificate of number to the purchaser of a new watercraft, providing that:
1. The watercraft has been purchased from the agent, or the applicant provides a bill of sale showing that the watercraft is new as distinguished from used and:
   a. The name and address of the buyer and seller;
   b. Date of purchase;
   c. Amount of sales tax paid. Certificate shall not be issued if sales tax has not been paid;
   d. Purchase price;
   e. Manufacturer's name;
   f. Length of craft;
   g. Year of manufacture;
   h. Hull identification number.
2. The agent shall accept applications only on prenumbered application forms provided to the agent by the Department, as prescribed in R12-4-502.
3. The agent shall collect from each watercraft applicant the state's watercraft registration fee and the appropriate watercraft license tax required. The state registration fee shall be identified to the applicant separately from any other costs.
4. The agent shall, within 72 hours after issuing a temporary certificate of number, deliver or deposit in the U.S. mail to the Department's Phoenix office the legible original application, a legible original or copy of the bill of sale, and a check or money order for the state's fees collected.

**F.** By the tenth day of each month, a watercraft agent shall submit a report of activity for the previous month to the Department on a form provided by the Department. The report shall be submitted whether or not any temporary certificates of number were issued during the reporting period. The report shall include the following:
1. Name and address of the watercraft agent, and the agent number assigned by the Department;
2. For each temporary certificate of number issued, the application number, name of purchaser, hull identification number, and date of issuance;
3. A list of any voided or missing application numbers, with explanation.

**G.** The Department may cancel authorization to be a watercraft agent and demand return or collect all supplies issued to the agent for any of the following reasons:
1. Failure to comply with this rule.
2. Issuance of more than one check with insufficient funds to the Department within a calendar year.
3. Predating, postdating, alteration, or providing or knowingly allowing false information to be provided on or with an application for a temporary numbering certificate.
4. Knowingly issuing a temporary certificate of number for a used boat.
5. Falsification of the application for authorization as a watercraft agent, or the monthly report required by subsection (F).

**H.** Denial of application to become a watercraft agent, or cancellation of watercraft agent status by the Department, may be appealed to the Commission pursuant to R12-4-608.

**Historical Note**
Adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-510. Refunds for Renewals**

**A.** The Department shall issue refunds for fees paid for renewal of watercraft registration under the following circumstances:
1. The Department shall issue a refund for 1 renewal fee when the registered owner has paid twice for the same registration renewal for the same watercraft.
2. The Department shall issue a refund for a renewal fee when a registered owner has erroneously paid for renewal of a watercraft that has already been sold to another individual, provided that the application for refund is made within 30 calendar days of the renewal.
3. The person applying for the refund shall surrender an original certificate of number and 1 set of decals to the Department in order to receive the refund.

**B.** The Department shall not refund payment of any penalty fee for late registration.

**Historical Note**
Adopted effective May 27, 1992 (Supp. 92-2). Amended effective November 7, 1996 (Supp. 96-4).

**R12-4-511. Personal Flotation Devices**

**A.** The operator of a canoe, kayak, or other watercraft that is less than 16 feet in length shall ensure that the canoe, kayak, or other watercraft is equipped with at least 1 appropriately-sized, U.S. Coast Guard-approved, wearable personal flotation device for each person on board the canoe, kayak, or other watercraft. The following wearable personal flotation devices are approved by the U.S. Coast Guard:
1. Type I Personal Flotation Device: off-shore life jacket.
2. Type II Personal Flotation Device: near-shore buoyant vest.
3. Type III Personal Flotation Device: flotation aid.

**B.** No person may use a watercraft 16 feet or more in length except a canoe or kayak unless it is equipped with a U.S. Coast Guard-approved buoyant cushion or ring life buoy (Type IV Personal Flotation Device). Such watercraft shall also be equipped with at least 1 of the following U.S. Coast Guard-approved wearable personal flotation devices of appropriate size for each person on board:
1. Type I Personal Flotation Device: off-shore life jacket.
2. Type II Personal Flotation Device: near-shore buoyant vest.
3. Type III Personal Flotation Device: flotation aid.

**C.** Before May 1, 1996, a Type IV personal flotation device may be carried on a canoe, kayak, or other watercraft that is less than 16 feet in length for use by persons on board if the canoe, kayak, or other watercraft is:
1. Leased or rented to another for the latter's pleasure as part of a livery or rental business;
2. Manually propelled; and
3. Less than 16 feet.

**D.** This rule is effective January 1, 1996.

**Historical Note**
Amended effective May 26, 1978 (Supp. 78-3). Former Section R12-4-80 renumbered as Section R12-4-511

without change effective August 13, 1981 (Supp. 81-4). Amended effective May 27, 1992 (Supp. 92-2). Amended effective January 1, 1996; filed in the Office of the Secretary of State December 18, 1995 (Supp. 95-4).

**R12-4-512. Fire Extinguishers Required for Watercraft**

**A.** Pursuant to A.R.S. § 5-332(B) and as prescribed by the U.S. Coast Guard, all Class 2 watercraft (26 feet to less than 40 feet) shall carry on board the following equipment as designated and approved by the United States Coast Guard:
1. At least two B-I type hand portable fire extinguishers or at least one B-II type hand portable fire extinguisher.
2. When a fixed fire extinguishing system is installed in the machinery space, there shall be on board at least one B-I type approved hand portable fire extinguisher.

**B.** Pursuant to A.R.S. § 5-332(B) and as prescribed by the U.S. Coast Guard, all Class 3 watercraft (40 feet to not more than 65 feet) shall carry on board the following equipment as designated and approved by the United States Coast Guard:
1. At least three B-I type hand portable fire extinguishers or at least one B-I plus one B-II type hand portable fire extinguishers.
2. When a fixed fire extinguishing system is installed in the machinery space, there shall be on board at least two B-I type hand portable fire extinguishers or at least one B-II type hand portable fire extinguisher.

**C.** Watercraft less than 26 feet in length shall be required to carry one B-I type fire extinguisher on board only if one or more of the following conditions exist:
1. Inboard engine.
2. Closed compartments under thwarts and seats where portable fuel tanks may be stored.
3. Double bottoms not sealed to the hull or which are not completely filled with flotation materials.
4. Closed living spaces.
5. Closed stowage compartments in which combustible or flammable materials are stored.
6. Permanently installed fuel tanks. Fuel tanks secured so they cannot be moved in case of fire or other emergency shall be considered permanently installed.

**Historical Note**

Former Section R12-4-81 renumbered as Section R12-4-512 without change effective August 13, 1981 (Supp. 81-4). Amended effective June 14, 1990 (Supp. 90-2).

**R12-4-513. Watercraft Casualty Reports**

**A.** The operator or owner of any watercraft involved in any collision, accident or other casualty shall submit the report required by A.R.S. § 5-349 on a form provided by the Department. The form shall be completed in full. Information not applicable or unknown shall be so marked. The following information shall be provided on the form:
1. The operator's name, address, date of birth, sex, and telephone number;
2. The owner's name, address, date of birth and telephone number;
3. The operator's hours of experience in operating watercraft;
4. Boat safety instruction;
5. Information on watercraft:
   a. Type of boat, make, and model;
   b. Boat propulsion and year built;
   c. Boat construction and year built;
   d. Hull material;
   e. Hull identification number;
   f. State registration number;
6. Information on accident:
   a. Date and time;
   b. General and specific location;
   c. Type of operation at time of accident;
   d. Type of accident;
   e. Weather, water conditions, wind, visibility, and estimated temperature at the time of accident;
   f. Cause of accident;
7. Estimated cost of damage to watercraft;
8. Whether watercraft was sunk, and if so, whether recovered, and the name, address and telephone number of the person who made recovery;
9. Whether the boat was adequately equipped with Coast Guard-approved personal flotation devices and:
   a. Whether they were accessible;
   b. Whether they were used;
10. Whether fire extinguishers were used, and types and number used;
11. Information on operators and owners of each of the other watercraft involved in the accident: name, address, telephone number, and watercraft registration number;
12. Information on persons killed or injured in accident: name, address, date of birth, cause of death or nature of injury, and the name and location of the receiving hospital;
13. The name, address, date of birth and telephone number of all passengers in the watercraft;
14. The location of passengers, skiers, and swimmers at the time of the accident;
15. If there was damage to property other than any of the watercraft involved:
   a. Name, address and telephone number of owner;
   b. Description of damage;
   c. Estimated cost of damage;
16. The name, address and telephone number of any witnesses other than passengers;
17. A diagram and narrative explaining the accident.

**B.** The person filling out the form shall sign the form, designate whether they are the owner, operator, or any other party, provide their name, address, telephone number, and the date the form was submitted to the Department.

**Historical Note**

Adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-514. Liveries**

Pursuant to A.R.S. § 5-371, a watercraft owned by a boat livery which does not have the certificate of number on board shall be identified while in use by means of a receipt provided by the livery to, and to be kept in the possession of, the person operating the rented watercraft. The receipt shall contain the following information:
1. The business name and address of the livery as shown on the certificate of number;
2. The watercraft registration number as issued by the Department;
3. The beginning date and time of the rental period.

**Historical Note**

Adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-515. Display of Numbers and Decals**

**A.** No person shall use or operate, or grant permission to use or operate, a watercraft on the waters within the boundaries of this state unless such watercraft has, on each side of the bow, a valid number and current annual decal displayed pursuant to this rule, except that a watercraft may be used or operated for 30 days when a valid temporary numbering certificate has

been issued pursuant to R12-4-509 and except for watercraft otherwise exempted in A.R.S. § 5-321 or 5-322.

**B.** The number awarded to each watercraft by the Department shall be painted on or attached to each side of the forward half of the watercraft in such position as to be clearly visible. The number shall read from left to right with well-proportioned block letters not less than 3 inches in height, excluding outline. The number shall be a color that will contrast with the background so as to be easily read. The letters AZ and the suffix shall be separated from the numerals by a hyphen or equivalent space. The decals shall be affixed 3 inches in front of the AZ on both sides of the forward half of the watercraft.

**C.** On watercraft so constructed that it is impractical or impossible to display the numbers in a prominent position on the forward half of the hull or permanent superstructure, the number may be displayed on brackets or fixtures securely attached to the forward half of the watercraft.

**D.** Persons possessing a dealer watercraft certificate issued pursuant to A.R.S. § 5-322(B) shall visibly display their numbers and validating decals as prescribed in this rule, except that the numbers and decals may be printed or attached to removable signs which may be temporarily but securely attached to the watercraft being demonstrated.

**E.** Expired decals issued by any jurisdiction shall be covered or removed from watercraft, so that only the current decal shall be visible.

**F.** Invalid watercraft numbers or decals shall not be displayed. See R12-4-506.

**Historical Note**

Section R12-4-515 renumbered from R12-4-501 and amended effective May 27, 1992 (Supp. 92-2).

**R12-4-516. Watercraft Sound Level Restriction**

**A.** It shall be unlawful for any person to operate a watercraft upon the waters of this state under any condition or in any manner that the watercraft emits a sound level in excess of 86 decibels on the "A" weighted scale when measured from a distance of 50 feet or more from the watercraft.

**B.** This Section shall not apply to watercraft operated under permits issued in accordance to A.R.S. § 5-336(C).

**Historical Note**

Former Section R12-4-82 renumbered as Section R12-4-516 without change effective August 13, 1981 (Supp. 81-4).

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**R12-4-517. Watercraft and Boat Engine Restrictions**

**A.** Persons operating power boats on the following waters shall use a single electric trolling motor only:

| | | |
|---|---|---|
| Arivaca Lake | Granite Basin Lake | Rucker Canyon Lake |
| Bear Canyon Lake | J.D. Lake | Santa Fe Lake |
| Becker Lake | Knoll Lake | Scott's Reservoir |
| Black Canyon Lake | Lee Valley Lake | Sierra Blanca Lake |
| Bunch Reservoir | Lower Lake Pleasant | Soldier Lake (in Coconino County) |
| Chaparral Lake | Lynx Lake | Stehr Lake |
| Cluff Ponds | McKellips Park Lake | Stoneman Lake |
| Coconino Reservoir | Nelson Reservoir | Tunnel Reservoir |
| Concho Lake | Pena Blanca Lake | Whitehorse Lake |
| Coors Lake | Riggs Flat Lake | Woodland Reservoir |
| Dankwork Pond | River Reservoir | Woods Canyon Lake |
| Dogtown Reservoir | Roper Lake | |

**B.** Persons operating power boats on the following waters shall use only a single electric trolling motor or a single gasoline motor not exceeding 8 manufacturer-rated horsepower:

| | | |
|---|---|---|
| Ashurst Lake | Cholla Lake Hot Pond | Luna Lake |
| Big Lake | Crescent Lake | Parker Canyon Lake |
| Blue Ridge Reservoir | Fool Hollow Lake | Rainbow Lake |
| Cataract Lake | Kaibab Lake | Show Low Lake |
| Chevelon Canyon Lake | Kinnikinick Lake | Willow Springs Lake |

**C.** Persons shall not operate watercraft on Frye Mesa Reservoir, Rose Canyon Lake, and Snow Flat Lake.

**D.** This rule does not apply to boats of governmental agencies or to Department-approved emergency standby boats operated by lake concessionaires when operating to address public safety or public welfare.

**Historical Note**

Amended as an emergency effective April 10, 1975 (Supp. 75-1). Amended effective May 3, 1976 (Supp. 76-3). Amended as an emergency effective July 9, 1976 (Supp. 76-4). Amended effective June 4, 1979 (Supp. 79-3). Former Section R12-4-89 renumbered as Section R12-4-517 without change effective August 13, 1981 (Supp. 81-4). Amended subsections (A) and (C) effective December 17, 1981 (Supp. 81-6). Amended effective December 28, 1982 (Supp. 82-6). Amended subsections (A) through (C) effective December 4, 1984 (Supp. 84-6). Amended effective November 7, 1996 (Supp. 96-4).

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**R12-4-518. Regattas**

**A.** When a regatta permit is issued by the Coast Guard, the person in control of the regatta shall at all times be responsible for compliance with the stipulations as prescribed within the regatta permit. Such stipulations may include but not be limited to:
1. A specified number of patrol or committee boats and identified as such.
2. Availability of emergency medical services.
3. Spectator control if there exists a danger that life or property is in jeopardy.

**B.** Non-compliance with any stipulation of an authorized permit which jeopardizes the public welfare shall be cause to terminate the regatta until the person in control or a person designated by the one in control satisfactorily restores compliance.

**C.** When a regatta applicant is informed in writing by Coast Guard that a permit is not required, such regatta may take place, but shall not relieve the regatta sponsor of any responsibility for the public welfare or confer any exemption from state boating and watersports laws and rules.

**Historical Note**
Adopted effective March 5, 1982 (Supp. 82-2).

**R12-4-519. Reciprocity**

All watercraft which are currently numbered or exempt from numbering under the provisions of their state of principal use are exempt from numbering for a period of 90 days after entering the state. See also A.R.S. § 5-322(C) and (F).

**Historical Note**
Section R12-4-519 renumbered from R12-4-503 and amended effective May 27, 1992 (Supp. 92-2).

**R12-4-520. Arizona Uniform State Waterway Marking System**

The Arizona Uniform State Waterway Marking System shall be as prescribed in 33 CFR 66.10, revised as of July 1, 1989, not including any later amendments, which is incorporated by reference herein. A copy of the incorporated matter is on file with the Secretary of State and is available from any Department office.

**Historical Note**
Section R12-4-520 adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-521. Placing or Tampering with Regulatory Markers or Aids to Navigation**

**A.** No person shall mark the waterways or their shorelines in this state with mooring buoys, regulatory markers, aids to navigation, or other types of permitted waterway marking devices as prescribed in R12-4-520, without authorization from the governmental agency or the private interest having jurisdiction on such waters.

**B.** No person shall moor or fasten a watercraft to any marker not intended for mooring, or willfully damage, tamper with, remove, obstruct, or interfere with any aid to navigation, regulatory marker or other type of permitted waterway marking devices as prescribed in R12-4-520, except in the performance of authorized maintenance responsibilities or as authorized pursuant to R12-4-518 or R12-4-522.

**Historical Note**
Section R12-4-520 adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-522. Establishment of Controlled-Use Markers**

**A.** Any agency or person may control the operation of watercraft, water skis, surfboards or similar contrivances on waters within their lawful jurisdiction by establishing controlled-use markers pursuant to the following requirements. When such a lawful jurisdiction has not exercised its authority to control watercraft, or when waters are directly under the jurisdiction of the Commission, the Department may control watercraft within that jurisdiction in accordance with the following requirements:
1. Controlled-use markers shall be placed only where controlled operation of watercraft is necessary to protect life, property, or habitat, and may be moved or removed only when the need for such protection has changed.
2. Restrictions imposed shall be clearly communicated to the public as prescribed by rule or by wording on the markers.

**B.** A governmental agency, excluding federal agencies having jurisdiction over federal navigable waterways, shall report to the Department when controlled-use markers have been placed and shall include in that report the type, purpose, and placement of markers, and whether the markers are expected to be permanent or temporary; the governmental agency shall also advise the Department of removal of controlled-use markers. The report shall be made within 30 days of establishment or removal of controlled-use markers. No report is required for establishment or removal of markers for a period of less than 30 days.

**C.** Any person or government agency may request establishment, change or removal of controlled-use markers on waters under the jurisdiction of the Commission or not under the jurisdiction of another agency by submitting the reasons for the request to the Director of the Arizona Game and Fish Department, who shall either accept or deny the request within 60 days of receipt. A person may appeal the Director's denial of a request to the Commission pursuant to R12-4-608.

**Historical Note**
Section R12-4-520 adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-523. Controlled Operation of Watercraft**

**A.** No person shall operate any watercraft, water ski, surfboard or similar contrivance in a manner contrary to the restrictions imposed by lawfully established controlled-use markers, except for:
1. Law enforcement officers acting within the scope of their lawful duties.
2. Persons involved in rescue operations.
3. Persons engaged in government-authorized activities.
4. When a permit has been issued by the authority having lawful jurisdiction for a regatta which is to take place within a controlled area during the time limits of the event.

**B.** The exemptions listed in subsection (A) shall not authorize any person to operate a watercraft in a careless, negligent or reckless manner as stated in A.R.S. § 5-341. See also R12-4-517.

**Historical Note**
Section R12-4-520 adopted effective May 27, 1992 (Supp. 92-2).

**R12-4-524. Reserved**

**R12-4-525. Reserved**

**R12-4-526. Reserved**

**R12-4-527. Reserved**

**R12-4-528. Reserved**

**R12-4-529. Repealed**

**Historical Note**
Adopted effective October 22, 976 (Supp. 76-5). Former Section R12-4-90 renumbered as Section R12-4-529 without change effective August 13, 1981 (Supp. 81-4). Repealed effective May 27, 1992 (Supp. 92-2).

**R12-4-530. Reserved**

**R12-4-531. Reserved**

**R12-4-532. Reserved**

**R12-4-533. Reserved**

**R12-4-534. Reserved**

**R12-4-535. Reserved**

**R12-4-536. Reserved**

**R12-4-537. Reserved**

**R12-4-538. Reserved**

**R12-4-539. Reserved**

**R12-4-540. Reserved**

**R12-4-541. Repealed**

**Historical Note**
Former Section R12-4-88 renumbered as Section R12-4-541 without change effective August 13, 1981 (Supp. 81-4). Amended effective April 5, 1985 (Supp. 85-2). Repealed effective May 27, 1992 (Supp. 92-2).

**R12-4-542. Repealed**

**Historical Note**
Adopted as an emergency effective August 31, 1981, valid for ninety (90) days after filing pursuant to A.R.S. § 41-1003 (Supp. 81-4). Former Section R12-4-542 adopted as an emergency now adopted as permanent with further amendment effective March 5, 1982 (Supp. 82-2). Amended effective March 29, 1985 (Supp. 85-2). Repealed effective May 27, 1992 (Supp. 92-2).

**R12-4-543. Repealed**

**Historical Note**
Adopted effective January 29, 1982 (Supp. 82-1). Amended effective August 19, 1983 (Supp. 83-4). Amended subsection (A) effective July 3, 1984 (Supp. 84-4). Amended effective March 29, 1985 (Supp. 85-2). Correction, subsection (A), paragraph (2) as certified effective March 29, 1985 (Supp. 86-3). Amended subsection (A) effective June 18, 1987 (Supp. 87-2). Amended as an emergency effective May, 15, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-2). Emergency expired. Amended and readopted as an emergency effective August 25, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-3). Emergency expired. Emergency amendments adopted with changes effective January 5, 1990 (Supp. 90-1). Repealed effective May 27, 1992 (Supp. 92-2).

**R12-4-544. Repealed**

**Historical Note**
Adopted effective August 19, 1983 (Supp. 83-4). Amended subsection (A) effective July 3, 1984 (Supp. 84-4). Amended subsection (A) effective June 18, 1987 (Supp. 87-2). Repealed effective May 27, 1992 (Supp. 92-2).

**R12-4-545. Repealed**

**Historical Note**
Adopted effective April 5, 1985 (Supp. 85-2). Amended by emergency effective May 18, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-2). Emergency amendments readopted effective August 28, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Repealed effective May 27, 1992 (Supp. 92-2).

## ARTICLE 6. RULES OF PRACTICE BEFORE THE COMMISSION

**R12-4-601. Petition for rule**

**A.** Any person, including any organization or agency, requesting that the Commission adopt, amend, or repeal a rule, shall submit a petition as prescribed in this rule before such request may be considered by the Commission.

**B.** A petition may not address more than one rule.

**C.** Once the Commission has considered and denied a petition, a petition submitted within the next year which addresses the same substantive issue shall be accompanied by a written statement containing any reason not previously considered which the petitioner believes should cause the Commission to reconsider its decision.

**D.** The original and one copy of a petition shall be filed with the Arizona Game and Fish Department, Director's Office, 2222 West Greenway, Phoenix, Arizona 85023. A petition shall be filed 30 calendar days prior to a scheduled Commission meeting in order to be submitted to the Commission at that meeting. Petitions received after that time shall be submitted to the Commission at the following regularly-scheduled open meeting. The date the petition is considered by the Commission in open meeting shall be considered the date of submission of a petition.

**E.** Within five working days of a petition's filing, the Director shall determine whether the petition meets the requirements prescribed in this rule.

1. If the petition meets the requirements prescribed in this rule, the Director shall place the petition on the agenda of an open meeting of the Commission according to the schedule designated in subsection (D) of this rule. The petitioner shall have the right to present oral testimony in support of the petition at that meeting, according to the provisions of R12-4-603, Oral proceedings before the Commission.
2. If the petition does not meet the requirements prescribed in this rule, the Director shall return the copy of the petition as filed to the petitioner with reasons why it does not meet the requirements of this rule. The Director will not

place the petition on an agenda for open meeting of the Commission. The original petition shall remain on file with the Department for five years to be considered in the course of the normal rules review process.

**F.** Petitions shall be submitted typewritten, double-spaced, on 8 1/2" x 11" paper, or typewritten on a form provided by the Department. The title shall appear at the top of the first page and shall be: "Petition for Rule to Arizona Game and Fish Commission". The petition shall be in five parts, with headings designating each part as prescribed in subsections (G) through (K) of this rule.

**G.** Part 1 shall be headed "Identification of Petitioner".
1. When the petitioner is a private person, Part 1 shall contain the name, mailing address and phone number of the petitioner.
2. If the petitioner is a private group or organization, Part 1 shall contain the name and address of the organization, and the name, mailing address and phone number of one person who is designated as the representative and official contact relative to the petition. Part 1 shall also state how many members are represented and how many of these members are Arizona residents. If petitioner prefers, the names and addresses of all members may be given.
3. If the petitioner is a public agency, Part 1 shall contain the name and address of the agency and the name, title and phone number of the agency's representative relative to the petition.

**H.** Part 2 shall be headed "Request for Rule". Part 2 shall contain one of the following:
1. If the request is for adoption of a new rule, a statement of that fact, followed by the title and specific language of the proposed rule.
2. If the request is for amendment of a current rule, a statement of that fact, followed by the A.A.C. number and title of the rule being proposed for amendment. This shall be followed by the specific language of the current rule; any language to be deleted shall be struck out but clearly readable, and any language to be added by the proposed amendment shall be underlined.
3. If the request is for repeal for a current rule, a statement of this fact, followed by the A.A.C. number and title of the rule being proposed for repeal.

**I.** Part 3 shall be headed "Reason for Rule". Part 3 shall contain:
1. The reason why the petitioner believes the rule should be considered;
2. Any statistical data or other justification supporting the reasons for the rule, with clear reference to any exhibits which may be attached to the petition.
3. An identification of what persons or segment of the public the petitioner believes would be impacted by the rule, and how they would be impacted.
4. If the petitioner is a public agency, Part 3 shall also contain a summary of issues raised in any public hearing relative to the petition, or any written comments offered by the public.

**J.** Part 4 shall be headed "Statutory Authority". Part 4 shall contain an identification of any statute which the petitioner believes gives the Commission the authority to adopt the rule, if known.

**K.** Part 5 shall be headed "Date and Signatures". Part 5 shall contain:
1. The original signature of private party or the official contact named pursuant to subsection (G), paragraphs (1) or (2) of this rule, or
2. If the petitioner is a public agency, the signature of the agency head.
3. The month, day, and year that person signed the petition.

**L.** When a petition is made by a land management agency for restrictions on motor vehicle use pursuant to A.R.S. § 17-451 through A.R.S. § 17-458, the petition shall include:
1. Within the specific language of the proposed rule, a legal description of the area to be closed;
2. Within the specific language of the proposed rule, the name or identifying number of any road and the portion thereof to be specifically closed;
3. Within the "Reason for Rule", the inclusive dates proposed for such closure, and whether the agency intends to re-petition for renewed closure at closure's expiration;
4. Within the "Reason for Rule", a general identification of any valid licensees and permittees, pursuant to A.R.S. § 17-455(A)(2), or explanation of method for identification of such valid licensees and permittees within the closed area.

**Historical Note**
Adopted effective December 22, 1987 (Supp. 87-4).

**R12-4-602. Written comment on proposed rules**

Any person may submit written statements, arguments, data and views on proposed rules which have been filed with the Secretary of State pursuant to A.R.S. § 41-1022. In order to be placed into the rule making record and considered by the Commission in its final decision, such written comment shall:
1. Contain the name and address of the sender;
2. Be received prior to or on the closing date for written comments, as published by the Secretary of State in the *Arizona Administrative Register;*
3. Indicate, if representing a group or organization, whether the views expressed are the official position of such group or organization, how many members are represented, types of membership available, and number of Arizona residents in each category;
4. Be submitted to the person designated by the Department as the agency contact person, as published in the *Arizona Administrative Register.*

**Historical Note**
Adopted effective December 22, 1987 (Supp. 87-4).

**R12-4-603. Oral Proceedings Before the Commission**

**A.** The Commission may, at its discretion or as required by the provisions of A.R.S. § 41-1023, allow oral proceedings on any matter. At oral proceedings:
1. The Chair is responsible for the conduct of the proceeding, and anyone wishing to speak shall first request and be granted permission by the Chair.
2. When necessary or appropriate, the Chair may administer an oath to a witness before receiving testimony.
3. The Chair may cause removal of any persons who conduct themselves in a disruptive or disrespectful manner.
4. The Chair may limit the number of presentations or the time for testimony upon a particular issue, and may prohibit irrelevant, immaterial, or repetitive testimony.
5. Technical rules of evidence do not apply to an oral proceeding, and no informality in any proceeding or in the manner of taking testimony invalidates any order, decision, or rule made, approved or confirmed by the Commission.

**B.** The Commission authorizes the Director to designate a hearing officer for oral proceedings to take public input on proposed rulemaking. The hearing officer has the same authority

as the Chair in conducting oral proceedings, as provided in this Section.

**Historical Note**
Adopted effective December 22, 1987 (Supp. 87-4).
Amended effective November 10, 1997 (Supp. 97-4).

**R12-4-604. *Ex parte* communication**

**A.** For purposes of this Section:
1. "Person outside the Commission" means any person other than a Commissioner, Department employee or consultant of the Commission, or an attorney representing the Commission.
2. "*Ex parte* communication" means an oral or written communication not on the public record with respect to which reasonable prior notice to all parties is not given.

**B.** In any contested case or proceeding (as defined in A.R.S. § 41-1001) before the Commission, except to the extent required for disposition of *ex parte* matters as authorized by law or these rules of procedure:
1. No interested person outside the Commission shall make or knowingly cause to be made to any Commissioner, Commission hearing officer, personal aide to a Commissioner, or other Department employee or consultant who is or may reasonably be expected to be involved in the decisional process of the proceeding, an *ex parte* communication relevant to the merits of the proceeding;
2. No Commissioner, Commission hearing officer, personal aide to a Commissioner, or other Department employee or consultant who is or may reasonably be expected to be involved in the decisional process of the proceeding, shall make or knowingly cause to be made to any interested person outside the Commission an *ex parte* communication relevant to the merits of the proceeding.

**C.** A Commissioner, Commission hearing officer, personal aide to a Commissioner, or other Department employee or consultant who is or may be reasonably expected to be involved in the decisional process of the proceeding, who receives, makes, or knowingly causes to be made a communication prohibited by this rule, shall place on the public record of the proceeding and serve on all parties to the proceeding:
1. All such written communications;
2. Memoranda stating the substance of all such oral communications; and
3. All written responses, and memoranda stating the substance of all oral responses, to the communications described in paragraphs (1) and (2) of this subsection.

**D.** Upon receipt of a communication made or knowingly caused to be made by a party in violation of this Section, the Commission or its hearing officer, to the extent consistent with the interests of justice and the policy of the underlying statutes and rules, may require the party to show cause why the claim or interest in proceeding should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation.

**E.** The provisions of this Section shall apply beginning at the time in which the contested case proceeding is noticed for hearing or at the time a notice of opportunity for hearing is issued or a request for hearing is filed, whichever comes first, unless the person responsible for the communication has knowledge that it will be noticed, in which case the prohibitions shall apply beginning at the time of the acquisition of such knowledge.

**Historical Note**
Adopted effective December 22, 1987 (Supp. 87-4).

**R12-4-605. Standards for revocation and denial of right to obtain license**

**A.** Pursuant to A.R.S. § 17-340, the Commission shall hold a hearing and may revoke or suspend all or any of the hunting, fishing and trapping licenses of any person when that person has been convicted of any of the following offenses:
1. Killing or wounding a big game animal during closed season or possessing a big game animal taken during closed season. Conviction for possession of road-kill animals or animals causing depredation shall not be considered "possessing during closed season" relevant to this subsection.
2. Destroying, injuring, or molesting livestock, growing crops, personal property, notices or signboards, or other improvements while hunting, fishing or trapping.
3. Careless use of firearms while hunting, fishing, or trapping which has resulted in injury or death to any person, when the act of discharging the firearm was deliberate.

**B.** Pursuant to A.R.S. § 17-340, the Commission may hold a hearing and may revoke or suspend all or any of the hunting, fishing and trapping licenses of any person when that person has been convicted of any of the following offenses:
1. Unlawfully taking or possessing big game, when there is convincing evidence which may or may not have been introduced in the court proceeding to support any of the following conclusions:
   a. The big game was taken without a valid license or permit.
   b. The unlawful taking was willful and deliberate and not accidental.
   c. The person in unlawful possession aided the unlawful taking or was, or should have been, aware that the taking was unlawful.
2. Unlawfully taking or possessing small game or fish, when there is convincing evidence which may or may not have been introduced in the court proceeding to support any of the following conclusions:
   a. The taking was willful and deliberate.
   b. The possession was in excess of the lawful possession limit plus the daily bag limit.
3. Unlawfully taking other wildlife species, when there is convincing evidence which may or may not have been introduced in the court proceeding that the act of taking was willful and deliberate and showed disregard for the state wildlife laws.
4. Littering a hunting or fishing area while taking wildlife, when there is convincing evidence which may or may not have been introduced in the court proceeding that the amount of litter was substantial, and that the person convicted made no reasonable effort to dispose of the litter in a lawful manner.
5. Careless use of firearms while hunting, fishing or trapping which resulted in injury or death to any person, when the act of discharging the firearm was not deliberate, but when there is convincing evidence which may or may not have been introduced in the court proceeding that the careless use demonstrated wanton disregard for the safety of human life or property.
6. Any other violation for which a license can be revoked pursuant to A.R.S. § 17-340, when that person has been convicted of other revocable offenses within the past three years, and that person's actions show disregard for the state's wildlife laws.

**C.** The Commission may hold a hearing and may revoke or suspend all or any of the hunting, fishing and trapping licenses of

any person in any other case where license revocation is authorized by law.

**Historical Note**
Adopted effective December 22, 1987 (Supp. 87-4).

**R12-4-606. Proceedings for License Revocation, Denial of Right to Obtain License, and Civil Damages**

**A.** The Director may commence proceedings for the Commission to revoke or deny the right to obtain a license under A.R.S. § 17-340 and in R12-4-605. The Director may also commence proceedings for civil damages under A.R.S. § 17-314.

**B.** The Commission shall conduct hearings concerning license revocations or denial of the right to obtain a license in accordance with the Administrative Procedure Act, A.R.S. § 41-1061 *et seq*. The respondents shall limit their testimony to any facts that show why the license should not be revoked or denied. Guilt or innocence of the violation charged shall not be an issue in the proceeding. The Commission may also permit a respondent to offer testimony or evidence relevant to the Commission's decision to order the recovery of civil damages or wildlife parts.

**C.** The respondent waives the right to be heard if the respondent is not present at the hearing on the date, time, and location noticed, and no further opportunity to be heard will be provided except under R12-4-607. If the respondent does not wish to attend the hearing, the respondent may submit written testimony to the Department before the hearing date designated in the Notice of Hearing. The Commission shall ensure that written testimony received at the time of the hearing is read into the record at the hearing.

**D.** The Commission shall base its decision on the officer's case report, a summary prepared by the Department, a certified copy of the court record, and any testimony presented at the hearing. The Department shall supply the respondent with a copy of all documents used by the Commission in reaching its decision.

**E.** Any party may apply to the Commission for issuance of a subpoena to compel the appearance of any witness or the production of documents at any hearing or deposition. Not later than 10 calendar days before the hearing or deposition, the party shall file a written application setting forth the name and address of the witness, the subject matter of the expected testimony, the documents sought to be produced, and the date, time and place of the hearing or deposition. The Commission chair may issue the subpoenas.

1. A party shall serve a subpoena as in the Arizona Rules of Civil Procedure, Rules 4 and 5. An employee of the Department may serve a subpoena at the request of the Commission chair.
2. Any party may request amendment to a subpoena at any given time prior to the time provided in this Section for filing an application for a subpoena. The amended subpoena shall be served as provided in subsection (E)(1).

**F.** A license revoked by the Commission is suspended as of the date of the hearing, and revoked upon issuance of the findings of fact, conclusions of law, and order. If a person appeals the Commission's order revoking a license, the license is revoked after all appeals have been completed. A denial of the right to obtain a license is effective for the period determined by the Commission, beginning on the date of the hearing.

**Historical Note**
Adopted effective December 22, 1987 (Supp. 87-4).
Amended effective November 10, 1997 (Supp. 97-4).

**R12-4-607. Rehearing or Review of Commission Decisions**

**A.** For purposes of this Section the terms "contested case" and "party" are defined as provided in A.R.S. § 41-1001.

**B.** Except as provided in subsection (G), any party in a contested case before the Commission may file a motion for rehearing or review within 30 calendar days after service of the decision. For purposes of this subsection a decision is served when personally delivered or mailed by certified mail to the party's last known residence or place of business. The party shall attach a supporting memorandum specifying the grounds for the motion.

**C.** A party may amend a motion for rehearing or review at any time before the Commission rules upon the motion. An opposing party has 10 calendar days after service to respond to the motion or the amended motion. The Commission may require the filing of written briefs on any issue raised in a motion or response, and may provide for oral argument.

**D.** The Commission may grant rehearing or review for any of the following causes materially affecting the moving party's rights:

1. Irregularity in the proceedings of the Commission, its staff, its hearing officer, or the prevailing party, or any order or abuse of discretion which deprived the moving party of a fair hearing;
2. Misconduct of the Commission, its staff, its hearing officer, or the prevailing party;
3. Accident or surprise which could not have been prevented by ordinary prudence;
4. Newly discovered material evidence which could not, with reasonable diligence, have been discovered and produced at the original hearing;
5. Excessive or insufficient penalties;
6. Error in the admission or rejection of evidence or other errors of law occurring at the hearing or during the progress of the proceeding;
7. That the findings of fact or decision is not justified by the evidence or is contrary to law.

**E.** The Commission may affirm or modify the decision or grant a rehearing to all or any of the parties on all or part of the issues for any of the reasons in subsection (D). The Commission's order modifying a decision or granting a rehearing shall specify the grounds for the order, and the rehearing or review shall cover only those specified matters.

**F.** Not later than 10 calendar days after a decision is rendered, the Commission may order a rehearing or review for any reason for which it might have granted relief on motion of a party. After giving the parties or their counsel notice and an opportunity to be heard on the matter, the Commission may grant a motion for rehearing or review for a reason not stated in the motion. In either case the order modifying the decision or granting a rehearing shall specify the grounds for the order.

**G.** When a motion for rehearing is based upon affidavits, the party shall serve the affidavits with the motion. An opposing party may within 10 calendar days after such service serve opposing affidavits. The Commission may extend this period for no more than 20 calendar days for good cause shown or by written stipulation of the parties. The Commission may permit reply affidavits.

**H.** If the Commission makes specific findings that an immediate effective date for a decision is necessary for the preservation of the public peace, health and safety and that a rehearing or review of the decision is impracticable, unnecessary, or contrary to the public interest, the Commission may issue a final decision without an opportunity for rehearing or review. If a decision is issued as a final decision without an opportunity for rehearing, the party applying for judicial review shall do so

within the time limits prescribed in the Judicial Review of Administrative Decisions Act, A.R.S. § 12-901 *et seq.*

**I.** If any part of this Section conflicts with any statute providing for rehearing of decisions of the Commission the statutory provisions shall control.

**Historical Note**
Adopted effective June 13, 1977 (Supp. 77-3). Former Section R12-4-14 renumbered as Section R12-4-115 without change effective August 13, 1981 (Supp. 81-4). Former Section R12-4-115 renumbered without change as Section R12-4-607 effective December 22, 1987 (Supp. 87-4). Amended effective November 10, 1997 (Supp. 97-4).

**R12-4-608. Appeal from Department Action**

**A.** An applicant for a license or permit which has been denied by the Department may appeal to the Commission. The applicant shall file the written appeal in the office of the Director within 30 calendar days after the denial is mailed or delivered to the applicant.
1. The appellant shall prepare and sign the appeal form provided by the Department, describing the type of license or permit applied for and the reason the license or permit should be issued.
2. The Director shall schedule a hearing before the Commission on the appeal within 90 days of receipt of the appeal. The appellant may present testimony at the hearing.

**B.** Any person, including any organization or agency, requesting that the Commission overturn a Department decision on the establishment or removal of controlled-use markers under R12-4-522 shall:
1. File a petition with the Arizona Game and Fish Department, Director's Office, 2221 West Greenway, Phoenix, Arizona, 85023, 30 calendar days prior to a scheduled Commission meeting. Petitions received after that time will be submitted by the Director to the Commission at the following regularly scheduled Commission meeting.
2. Submit petition typewritten or computer-printed, double-spaced, on 8½" x 11" paper. The petitioner shall place the title "Petition for Watercraft Restriction Amendment to the Arizona Game and Fish Commission" at the top of the 1st page, and provide the following information:
   a. Name, mailing address, and phone number of the petitioner, including the name, address, and phone number of the person acting as official representative for any group, organization, or agency involved in the petition;
   b. A statement of facts concerning the exact action requested, including specific location of controlled-use markers or watercraft or boat engine restrictions to be changed or removed;
   c. A statement of reasons to support the requested action;
   d. The signature of the petitioner or official representative for the petitioner, and the date the petition was signed.

**Historical Note**
Adopted effective April 28, 1989 (Supp. 89-2). Amended effective May 27, 1992 (Supp. 92-1). Amended effective November 10, 1997 (Supp. 97-4).

**R12-4-609. Commission Orders; Emergency Seasons**

**A.** Except as provided in subsection (B):
1. At least 20 calendar days prior to a meeting where the Commission will consider a Commission order, the Department shall issue a public announcement of the proposed Commission order to print and electronics media in accordance with A.R.S. § 38-431.02.
2. The announcement shall contain the date, time, and location of the Commission meeting where these recommendations will be considered and a statement that the public may attend and present written comments at or before the hearing.
3. The announcement shall also state that copies of proposed Commission orders will be available for public inspection at the Department offices in Phoenix, Pinetop, Flagstaff, Kingman, Yuma, Tucson, and Mesa 10 calendar days prior to the meeting.

**B.** The requirements of subsection (A) do not apply to Commission orders establishing:
1. Depredation hunts as prescribed in R12-4-115.
2. Special seasons for persons possessing special license tags issued under A.R.S §17-346 and R12-4-120.
3. Emergency seasons when the Commission adopts, amends, or repeals a Commission order for emergency reasons constituting an immediate threat to the health, safety, or management of wildlife or its habitat or public health or safety.
   a. When the number of hunters to participate in an emergency big game season must be limited, hunters may be randomly selected from the list of applicants established pursuant to R12-4-115; the Department may advertise for and accept new applications as needed.
   b. The restrictions in R12-4-309 do not apply to an emergency season.
   c. The provisions of R12-4-104, R12-4-107, and R12-4-114 do not apply to an emergency season.

**C.** The Department shall publish the content of all Commission orders and make them available to the public without charge.

**Historical Note**
Adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4). Amended effective November 10, 1997 (Supp. 97-4).

**R12-4-610. Petition for Requesting Closure of Hunting, Fishing, or Trapping Privileges on State or Federal Lands**

**A.** Any person or agency requesting that the Commission consider closing state or federal land to hunting, fishing, or trapping pursuant to R12-4-110 or A.R.S. § 17-304(B), or roads or trails on state lands pursuant to R12-4-110, shall submit a petition as prescribed in this rule before such a request may be considered by the Commission.

**B.** A petition shall not address more than one contiguous closure request.

**C.** Once the Commission has considered and denied a petition, a petition submitted subsequently which addresses the same contiguous closure request shall be accompanied by a written statement containing any reason not previously considered which the petitioner believes should cause the Commission to reconsider its decision.

**D.** The original and one copy of a petition shall be filed with the Director of the Arizona Game and Fish Department, 2221 West Greenway, Phoenix, Arizona 85023. A petition shall be filed not less than 60 calendar days prior to a scheduled Commission meeting in order to be considered by the Commission at that meeting. Petitions received after that time shall be submitted to the Commission at the following regularly scheduled open meeting. The petitioner may at any time withdraw the petition or request delay to a later regularly scheduled open meeting.

**E.** Within 15 working days of a petition's filing, the Department shall determine whether the petition meets the requirements prescribed in this rule and R12-4-110.
1. If the petition meets the requirements prescribed in this rule and R12-4-110, and alternate solutions cannot be found which are acceptable to the petitioner, the Department shall place the petition on the agenda of an open meeting of the Arizona Game and Fish Commission according to the schedule designated in subsection (D) of this rule. The petitioner shall have the right to present oral testimony in support of the petition at that meeting, according to the provisions of R12-4-603.
2. If the petition does not meet the requirements prescribed in this rule and R12-4-110, the Department shall return one copy of the petition as filed to the petitioner with reasons why it does not meet the requirements. The Department shall not place the petition on an agenda of an open meeting with the Commission.

**F.** Petitions shall be submitted typewritten, double-spaced, on 8 1/2 x 11" paper. A concise map with legal descriptions, showing the specific location of the proposed closure, shall accompany the typewritten petition. The title shall appear at the top of the first page and shall be "Petition for Closure to Hunting, Fishing or Trapping on State or Federal Land." The petition shall be in four parts, with headings designating each part as prescribed in subsections (G) through (J) of this rule.

**G.** Part 1 shall be headed "Identification of Petitioner."
1. When the petitioner is the leaseholder of the area being proposed for closure, Part 1 shall contain the name, lease number, mailing address, and home telephone number of the petitioner.
2. If the petitioner is anyone other than the leaseholder, Part 1 shall contain the name, mailing address, and telephone number of the leaseholder in addition to the name, mailing address and telephone number of the petitioner and shall list any private groups or organizations the petitioner may represent.
3. If the petitioner is a public agency, Part 1 shall contain the name and address of the agency and the name, title, and telephone number of the agency's representative relative to the petition.

**H.** Part 2 shall be headed "Request for Closure." Part 2 shall contain the following:
1. Designation of the type of closure requested: hunting, fishing, trapping, road closure, or locking or obliterating a gate.
2. A complete legal description of the area to be closed.
3. The name or identifying number of any road and the portion thereof affected by the closure to hunting, fishing, or trapping. If the request is for closure of a road or trail when no closure to hunting, fishing, or trapping is to be made, the petition shall designate the proposed alternate access route.
4. The inclusive dates proposed for the closure or whether the request is for a permanent closure.
5. A general identification of any other valid licensees or permittees that will or may be affected by the closure.

**I.** Part 3 shall be headed "Reason for Closure." Part 3 shall contain the following:
1. The reason why the petitioner believes the closure should be considered, pursuant to R12-4-110.
2. Any data or other justification supporting the reasons for the closure with clear reference to any exhibits which may be attached to the petition.
3. An identification of what persons or segment of the public the petitioner believes would be impacted by the closure, and how they would be impacted, including both positive and negative implications.
4. If the petitioner is a public agency, Part 3 shall also contain a summary of issues raised in any public hearing relative to the petition and any written comments received by the petitioning agency.

**J.** Part 4 shall be headed "Dates and Signatures" and shall contain the following:
1. The original signature of the private party or the official contact named pursuant to subsection (G)(1) or (2) of this rule, or
2. If the petitioner is a public agency, the signature of the agency head.
3. The month, day, and year that person signed the petition.

**Historical Note**
Adopted effective March 1, 1991; filed February 28, 1991 (Supp. 91-1). Amended effective January 1, 1993; filed December 18, 1992 (Supp. 92-4).

## ARTICLE 7. HERITAGE GRANTS

### R12-4-701. Heritage Grant Definitions

In addition to the definitions provided in A.R.S. §§ 17-101 and 17-296, the following definitions apply to the rules within this Article:
1. "Approved application" means the participant's application including any changes, exceptions, deletions, or additions made by the Department prior to and for the purposes of approval.
2. "Budget Prioritization Process" means a document approved by the Game and Fish Commission based upon the Department mission statement, strategic plans, and current guiding statements which define the Department's priorities. This process is also used for prioritizing grant applications.
3. "Department" means the Game and Fish Department.
4. "Facilities" means capital improvements.
5. "Fund" means a granting source from the Game and Fish Heritage Fund, pursuant to A.R.S. § 17-297.
6. "Commission" means the Game and Fish Commission.
7. "Participant" means an eligible applicant that has been awarded a grant from the fund.
8. "Project" means an activity, or series of related activities, which are described in the specific project scope of work and which result in specific products or services.
9. "Project period" means the period of time during which all approved work and related expenditures associated with an approved project are to be accomplished by the participant.
10. "Public agency" means the federal government or any federal department or agency, Indian tribe, this state, all departments, agencies, boards, and commissions of this state, counties, school districts, cities, towns, all municipal corporations, and any other political subdivision of this state.
11. "Specific scope of work" means the units of work to be accomplished by an approved project.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

### R12-4-702. General Provisions

**A.** The application deadline is the last working day of November each year and funds become available July 1 of the following year. The Department shall ensure that the "Grant Application Manual" containing application forms and instructions and the Budget Prioritization Process are avail-

able from the Department's Funds Planning Section within the Phoenix office. The Department shall also ensure that any annualized information on project emphasis for each fund is also available.

**B.** Applicants shall be public agencies as defined in R12-4-701 and shall apply for Heritage grants in accordance with A.R.S. §§ 17-296, 17-297, and 17-298 and Commission rules within 12 A.A.C. 4, Article 7, in order to be eligible for consideration. Applicants who have failed to comply with the rules or conditions of the participant-in-aid agreements are not eligible for further grants if they have any project over 2 years old which has not been completed and closed, unless a formal extension has been requested and approved.

**C.** The Department shall notify applicants in writing of the results of their applications and announce grant awards at a regularly scheduled open meeting of the Game and Fish Commission. An unsuccessful applicant may submit an appeal regarding a grant award within 30 calendar days of the Commission meeting in accordance with R12-4-608.

**D.** Participants shall not begin projects described in an application until they have signed a participant-in-aid agreement. Participants shall complete projects as specified in the agreement. Participants shall submit records that substantiate the expenditure of funds.

**E.** The participant shall operate and maintain properties, facilities, equipment, and services for the benefit of the public for the useful life of the project.

**F.** The participant shall control land or waters on which capital improvements are to be made, through fee title, lease, easement, or agreement. To be eligible for a Heritage grant, the applicant's management or control rights to the proposed site must be equivalent to the proposed investment in at least 1 of the following 3 respects:

1. The time remaining on the use agreement is a term sufficient, in the judgment of the Department, to ensure a period of public use equal in value to the expenditure of awarded funds.
2. The use agreement is not revocable at will by the property owner and provides for the option to renew by the managing agency.
3. The applicant shall show evidence that public access exists to the actual site where the project is proposed, unless the purpose of the project proposal is to specifically create access or limit access.

**G.** A participant shall give public acknowledgment of grant assistance for the life of a project. When a project involves acquisition, development, or renovation, the participant shall install a permanent sign describing the funding sources and dollar amounts of all funds. The participant may include the cost of this signage as part of the original project, but shall be responsible for maintenance or replacement of the sign as required. For other project types, the participant shall include funding acknowledgment on any publicly available or accessible products resulting from the project.

**H.** The Department shall not accept project proposals for less than $1000 except that environmental education and schoolyard grant proposals may be as low as $500.

**I.** The participant shall pay operation and maintenance costs, including costs for reprinting of publications or other media.

**J.** The participant shall not use grant funds to pay compensation in excess of the legally established salary for any permanent public employee.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-703. Review of Proposals**

**A.** Grant proposals are competitive and the Department shall make awards on the basis of proposed projects' compatibility with priorities of the Game and Fish Department, project feasibility, merit, and usefulness. The Department shall evaluate and rank all eligible proposals pursuant to the criteria established in these rules and the Department's Budget Prioritization Process as approved by the Commission and available from the Department's Funds Planning Section.

**B.** The Department may make funding of a project contingent upon revision of the proposal.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-704. Urban Wildlife and Urban Wildlife Habitat Grants**

**A.** "Urban wildlife" means the wildlife that occurs within the limits of an incorporated area or in close proximity to an urban area that receives significant impact from human use. (A.R.S. § 17-296(6)).

**B.** In order to be eligible for a grant award, an applicant shall ensure that a proposed project location meets 1 of the following criteria:

1. It is within the corporate limits of an incorporated city or town;
2. It is within the communities of Green Valley, Flowing Wells, Sun City, or Sun City West;
3. It is within 5 miles, in straight distance, of the boundary of an incorporated area or 1 of the communities listed above.

**C.** In order to be eligible for an urban wildlife or urban wildlife habitat grant award, applicants shall ensure that proposed projects are designed to conserve, enhance, and establish wildlife habitats and populations in harmony with urban environments, and increase public awareness of and support for urban wildlife resources.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-705. Public Access Grants**

**A.** "Public access" means providing entry to publicly held lands for recreational use where such entry is consistent with the provisions establishing those lands. (A.R.S. § 17-296(1)). Publicly held lands are those federal, public, and reserved lands, State Trust Lands, and other lands within the state of Arizona which are owned, controlled, or managed by the United States, the state of Arizona, agencies, or political subdivisions of the state.

**B.** In order to be eligible for a public access grant award, applicants shall ensure that proposed projects are designed to increase, maintain, or reduce public access for recreational use in cooperation with federal land managers, local and state governments, private landowners and public users, and inform and educate the public about recreational use of publicly held lands and public access to those lands.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-706. Environmental Education Grants**

**A.** "Environmental education" means educational programs dealing with basic ecological principles and the effects of natural and man related processes on natural and urban systems and programs to enhance public awareness of the importance of safeguarding natural resources. (A.R.S. § 17-296(7)).

**B.** In order to be eligible for an environmental education grant, applicants shall ensure that project proposals are for no less

than $500 and no more than $10,000, and that proposed projects are designed to:
1. Develop awareness, appreciation, and understanding of Arizona's wildlife and its environment and increase responsible actions toward wildlife;
2. Use Arizona wildlife as its focus and present wildlife issues in a balanced and fair manner;
3. Have impact on Arizona schools and school children.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-707. Schoolyard Habitat Grants**

**A.** In order to be eligible for a schoolyard habitat grant, the applicant must be a public school within Arizona.

**B.** In order to be eligible for a schoolyard habitat grant, applicants shall ensure that proposed projects are designed to:
1. Encourage wildlife education on school sites or adjacent areas that allow wildlife education activities and encourage use by urban wildlife species;
2. Encourage native wildlife species, utilize a majority of native plant materials, and demonstrate water conservation techniques;
3. Actively use school children in the planning, development, and construction process, demonstrate long-term sustainability, and be fully integrated into the school curriculum.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-708. IIAPAM: Grants for Identification, Inventory, Acquisition, Protection, and Management of Sensitive Habitat**

**A.** The following definitions are established in A.R.S. § 17-296:
1. "Habitat protection" means the process of protecting the quality, diversity, abundance, and serviceability of habitats for the purposes of maintaining or recovering populations of Arizona wildlife.
2. "Sensitive habitat" means the specific areas within the geographical area historically or currently occupied by a species or community of species in which are found those physical or biological features essential to the establishment or continued existence of the species and which may require special management, conservation, or protection considerations.

**B.** In order to be eligible for an IIAPAM grant, applicants shall ensure that proposed projects are designed to:
1. Preserve and enhance Arizona's natural biological diversity, and
2. Incorporate at least 1 of the following elements:
   a. Identification, inventory, acquisition, protection, or management of sensitive habitat.
   b. Inventory, identification, protection, or management of species as addressed within A.R.S. § 17-296.

**C.** Each year the Department shall provide a listing of habitat and species as defined within A.R.S. § 17-296 which it will consider in accordance with biological, conservation, and management status changes.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-709. Grant Applications**

**A.** In order to be eligible, an applicant shall submit a grant application in accordance with the schedule established by R12-4-702.

**B.** The applicant shall submit a separate application for each funding source.

**C.** The applicant shall submit the original plus 2 copies of each application on paper sized 8 ½ " x 11", and shall ensure that the original and the copies are legible.

**D.** The Department shall not accept facsimile or "fax" copies of a grant application.

**E.** The applicant shall ensure that the 1st page of the application is the "Application Checklist" which lists all items required within the application. The applicant shall check off an item if it is included within the application, and initial each item which is not applicable.

**F.** The applicant shall provide the following information on the grant application form:
1. Name of the eligible applicant;
2. Any county and legislative district where the project will be developed or upon which the project will have impact;
3. The official mailing address of the applicant;
4. The name, title, and telephone number of the individual who will have the day-to-day responsibility for the proposed project;
5. Identification of the particular grant fund from which assistance is being requested, pursuant to R12-4-704, R12-4-705, R12-4-706, R12-4-707, or R12-4-708;
6. The proposed project title incorporating the name of the site, if any and the type of work to be accomplished;
7. A clear and concise scope description and objective of the proposed project; the nature of what is to be accomplished; the methods to be used; and the desired result from the project;
8. The beginning and ending dates for the project;
9. The funding amounts that will be needed to accomplish the project, including the Heritage Grant funds requested, and evidence of secured matching funds or contributions.

**G.** The grant application form must be signed by an authorized agent of the public agency applying for the grant, and by signing, the authorized agent represents that the applicant has authority to enter into agreements, accept funding, and fulfill the terms of the proposed project.

**H.** The applicant shall submit a location map clearly identifying project locations or project proposal areas; if applicable, the applicant shall also submit a site plan and floor plan.

**I.** The applicant shall submit with the grant application the following information to provide evidence of control and tenure at the project site:
1. If the project site is owned by the applicant, a copy of the appropriate legal document showing title in the name of the applicant and the legal description of the property;
2. If the project site will be managed by the applicant, a copy of the lease, special use permit, intergovernmental agreement, or other appropriate official instrument;
3. For research project proposals relating to sites not controlled by the applicant, a copy of the permit or agreement allowing the research or, at a minimum, a letter of intent from the land manager allowing the research.

**J.** The applicant shall submit an estimated project cost sheet form with the following information:
1. Project title as designated on the application form;
2. If applicable, pre-agreement costs requested;
3. If applicable, all estimated development costs in order of priority of need, facilities to be constructed, unit measurements, number of items, and total costs;
4. All land parcels to be acquired listed in priority order; acreage involved; and anticipated dates of acquisition;
5. The cost, title, and name of personnel who would accomplish the project objectives and who receive benefit from the grant;

6. The applicant shall provide the total cost for the entire project proposal and list each of the following amounts separately:
   a. Heritage grant funds requested;
   b. Applicant contribution to the project, if applicable; and
   c. Any other sources.

**K.** The applicant is responsible for securing all documentation necessary to comply with local, state, or federal law, and for providing copies of all required compliance documents to the Department prior to project implementation.

**L.** The applicant shall answer questions relevant to the grant applied for and to the Budget Prioritization Process by which the Department evaluates and ranks proposals.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-710. State Historic Preservation Office Certification**
The Department shall not release grant funds until certification is received from the State Historic Preservation Officer in accordance with A.R.S. §§ 41-861 through 41-864, the State Preservation Act, which mandates that all state agencies consider the potential of activities or projects to impact significant cultural resources.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-711. Participant Agreements**
Prior to any transfer of funds, a participant shall agree to and sign a participant agreement, which includes the following minimum stipulations:

1. The participant shall use awarded grant funds solely for eligible purposes of the funding program as defined by law and as approved by the Department. The participant shall not exceed the grant allocation unless the parties amend the participant agreement.
2. If both parties agree that all project costs must be expended within the 1st quarter, the Department shall transfer the total amount of awarded grant funds to the participant within the 1st quarter. In all other cases, the Department shall transfer awarded grant funds, less 10%, to the participant within 1 year of the grant award. The Department shall transfer the final 10% upon receipt of a written request and a certification of project completion from the participant, unless the participant violates state law or the participant agreement. The Department may perform completion inspections prior to release of final payment.
3. The participant shall deposit transferred grant funds in a separate project account carrying the name and number of the project. The participant shall expend funds from the account only as authorized under the terms of the agreement.
4. The participant may request changes to the terms, scope, conditions, or provisions of the agreement in writing to the Department. Requests for extension beyond the approved project period shall be submitted by the participant no later than 30 days prior to the contract expiration date. The Department shall prepare in writing any approved amendments, which must be signed by both the participant and the Department in order to be valid.
5. Notwithstanding subsection (4), the Department may unilaterally extend the project period by no more than 90 days when necessary to perform completion inspections or to develop an amendment for extension of the project period.
6. If the participant violates state law or the participant agreement, the Department may seek recovery of all funds granted and classify the participant as ineligible for Heritage Funds grants for a period not to exceed 5 years.
7. A participant shall operate and maintain grant-assisted capital improvements and provide reasonable protection of any project improvements.
8. A participant sponsoring a 3rd party or subcontractors is responsible for compliance with agreement provisions in the event of 3rd party or subcontractor default.
9. Participants shall use awarded grant funds solely for those costs associated with approved project work incurred during the project period.
10. The project period is designated to be 2 years from the effective date of the agreement unless otherwise agreed upon by the Department and the participant.
11. Should a balance of awarded grant funds be available upon completion of approved project elements, the participant may, with Department approval, develop additional scope elements.
12. The participant shall request amendments to accommodate additions or changes to the agreement in writing, stating the need and rationale for the amendments.
13. The participant shall use equipment purchased with grant funds for a public purpose for the useful life of the equipment, or surrender the equipment to the Department upon completion of the project. If the equipment is sold, the participant shall pay the Department the amount of any resulting proceeds in the ratio equivalent to the funds provided for the purchase.
14. The participant shall ensure that values of real property purchased with grant assistance are appraised by a Arizona certified appraiser within 1 year before the purchase or lease according to the Uniform Standards of Professional Appraisal Practice. The Department may select an appraiser for independent evaluation. The Department's acceptance of land conveyance documents is contingent upon approval by the Game and Fish Commission and the governor.
15. Failure to submit reports as required in R12-4-712 shall delay grant reimbursement or processing until the participant has submitted all past due reports.
16. The Department may conduct inspections to assure compliance with all terms of the contract.
17. A participant shall not use grant funds for the purpose of producing income. However, the participant may engage in income-producing activities incidental to the accomplishment of approved purposes if the participant uses the activities to further the purposes of the approved project or returns the income to the original funding source designated in the agreement. The participant shall return funds remaining at the end of the project period to the Department.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

**R12-4-712. Reporting and Record Requirements**

**A.** Within 30 days after the end of each quarter, participants shall submit a quarterly project-status report to the Department covering activities for the quarter that just ended. Participants shall ensure that this report includes a Section covering each of the following subjects:
   1. Progress in completing approved work,

2. Budget,
3. Anticipated delays and problems preventing expeditious completion of the project.

**B.** Participants shall account for income or interest derived from project funds in their report.

**C.** Each participant shall retain and shall contractually require each subcontractor to retain all books, accounts, reports, files, and other records relating to the acquisition and performance of the contract for a period of 5 years after the completion of the contract. The Department may inspect and audit participant and subcontractor records. Upon the Department's request, a participant or subcontractor shall produce a legible copy of these records. The participant may substitute microfilm copies in place of the original records after project costs have been verified.

**Historical Note**
Adopted effective July 12, 1996 (Supp. 96-3).

# TITLE 12. NATURAL RESOURCES

## CHAPTER 5. LAND DEPARTMENT

(Authority: A.R.S. § 37-102 et seq.)

***Editor's Note: The proposed summary action repealing R12-5-901 through R12-5-920 was remanded by the Governor's Regulatory Review Council which revoked the interim effectiveness of the summary rules. Sections in effect before the proposed summary action have been restored (Supp. 98-3).***

***Editor's Note: This Chapter contains rules which were adopted or amended under an exemption from the Arizona Administrative Procedure Act (A.R.S. Title 41, Chapter 6), pursuant to Laws 1992, Ch. 297, § 6. Exemption from A.R.S. Title 41, Chapter 6 means that the Land Department did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Governor's Regulatory Review Council did not review these rules; the Land Department was not required to hold public hearings on these rules; and the Attorney General did not certify these rules. Because this Chapter contains rules which are exempt from the regular rulemaking process, the Chapter is being printed on blue paper.***

*Title 12, Chapter 5, Articles 1 thru Article 23, were renumbered to bring the Chapter numbering into compliance with current format. For the old and new Section numbers, please refer to the introductory notes at the beginning of each Article in the table of contents or in the historical notes for the specific Sections.*

### ARTICLE 1. GENERAL PROVISIONS

*Article 1, consisting of Section R12-5-10, adopted effective August 2, 1994 (Supp. 94-3).*

*Article 1, consisting of Sections R12-5-101 thru R12-5-103, repealed effective August 2, 1994 (Supp. 94-3).*

*Article 1, consisting of Sections R12-5-01 thru R12-5-03, renumbered to Article 1, Sections R12-5-101 thru R12-5-103 (Supp. 93-3).*

Section

R12-5-101. Relating to Proceedings Before the State Land Department
R12-5-102. Repealed
R12-5-103. Repealed

### ARTICLE 2. PRACTICE AND PROCEDURE IN CONTESTED CASES BEFORE THE ARIZONA STATE LAND COMMISSIONER

*Article 2, consisting of Sections R12-5-201 thru R12-5-222, adopted effective August 2, 1994 (Supp. 94-3).*

Section

R12-5-201. Appointment of Hearing Officer; Disqualification
R12-5-202. Initiation of a Contested Case
R12-5-203. Request for Hearing
R12-5-204. Denial of Request for Hearing
R12-5-205. Failure to Appear; Default
R12-5-206. Amendment of Notice of Hearing; Request for More Definite Statement
R12-5-207. Communications Regarding Matters Related to Contested Case
R12-5-208. Representation
R12-5-209. Notice of Hearing or Prehearing Conference
R12-5-210. Contested Case Record
R12-5-211. Intervention
R12-5-212. Consolidation and Severance
R12-5-213. Prehearing Conference, Procedure and Prehearing Order
R12-5-214. Filing; Computation of Time; Extension of Time
R12-5-215. Service; Proof of Service
R12-5-216. Subpoenas
R12-5-217. Procedure at Hearing
R12-5-218. Evidence
R12-5-219. Stipulations
R12-5-220. Recommended Decision
R12-5-221. Decision
R12-5-222. Review and Rehearing of Decision

### ARTICLE 3. SELECTIONS, INVESTIGATIONS, CLASSIFICATIONS AND APPRAISALS

*Article 2, consisting of Section R12-5-50, renumbered to Article 3, Section R12-5-301 (Supp. 93-3).*

Section

R12-5-301. Selections

### ARTICLE 4. SALES

*Article 4, consisting of Sections R12-5-71 thru R12-5-82, renumbered to Article 4, Sections R12-5-401 thru R12-5-412 (Supp. 93-3).*

Section

R12-5-401. Application Form
R12-5-402. Conditions for Filing Application
R12-5-403. Restrictions Subsequent to Filing Application to Purchase
R12-5-404. Responsibility of the Purchaser
R12-5-405. Evidence of Taxes and Assessments Being Paid
R12-5-406. Assignment of a Certificate of Purchase
R12-5-407. Requirement for Replacing a Certificate of Purchase
R12-5-408. Partial Patent
R12-5-409. Terms and Condition of Sale of State Land to Governmental Agencies of the State or Political Subdivisions and Municipal Corporations Thereof
R12-5-410. Sale of State Land to Governmental Agencies of the State or Political Subdivisions and Municipal Corporations Thereof, A.R.S. § 37-461
R12-5-411. Mineral Reservation
R12-5-412. Terms and Conditions for Extensions of Payments of Certificates of Purchase
R12-5-413. Real Estate Broker Commissions

### ARTICLE 5. LEASES

*Article 5, consisting of Sections R12-5-100 thru R12-5-134, renumbered to Article 5, Sections R12-5-501 thru R12-5-535 (Supp. 93-3).*

Section

R12-5-501. Land Subject to Lease or Permit
R12-5-502. Classification and Reclassification by Commissioner
R12-5-503. Qualifications Necessary to Lease State Land
R12-5-504. Applications for Lease or Permit
R12-5-505. Application for Land Included under Existing Lease or Permit
R12-5-506. Two or More Applications for Lease or Permit
R12-5-507. Judicial Notice

R12-5-508. Application Confers No Right to Land
R12-5-509. Execution of Leases or Permits; Covenants; Effective Date and Completion of Lease or Permit
R12-5-510. Use of State Lands: Failure to Use
R12-5-511. Sublease
R12-5-512. Assignments
R12-5-513. Manner of Assignments
R12-5-514. Preference Right to Lease
R12-5-515. Preferred Right of Renewal of Leases or Permits; Exceptions
R12-5-516. Time for Filing Conflicting Applications
R12-5-517. Rentals
R12-5-518. Rental Notices
R12-5-519. Extension of Period for Payment of Rental
R12-5-520. Notice of Expiration of Lease or Permit
R12-5-521. Modification or Amendment of Existing Lease or Permit
R12-5-522. Forfeiture of Lease or Permit
R12-5-523. Posting to Prohibit Hunting and Fishing on State Land
R12-5-524. Sale, Mortgage, or Lien on Interest of Holder of Lease or Permit
R12-5-525. Permit for Placing Improvements on State Lands
R12-5-526. Basis for Appraisal of Improvements on State Lands
R12-5-527. Improvements; Removal
R12-5-528. Reimbursement for Improvements by Succeeding Lessee, Permittee or Purchaser
R12-5-529. Cooperation with the Commissioner
R12-5-530. Application for Reclassification or Reappraisal
R12-5-531. Suspension of Application Pending Reclassification
R12-5-532. Cancellation of Lease upon Reclassification
R12-5-533. Trespass on State Land
R12-5-534. Rules of Procedure in Conflicts
R12-5-535. Form of Lease

**ARTICLE 6. IMPROVEMENTS (RESERVED)**

**ARTICLE 7. SPECIAL LEASING PROVISIONS**

*Article 7, consisting of Sections R12-5-150 thru R12-5-155, renumbered to Article 7, Sections R12-5-701 thru R12-5-706 (Supp. 93-3).*

Section
R12-5-701. Lease of Trust Lands to the Arizona State Parks Board, Counties and Cities or Towns for Recreation Purposes
R12-5-702. Agricultural Leases
R12-5-703. Commercial Leases
R12-5-704. Education Leases
R12-5-705. Grazing Leases
R12-5-706. Homesite Leases

**ARTICLE 8. RIGHTS-OF-WAY**

*Article 8, consisting of Sections R12-5-165 thru R12-5-167, renumbered to Article 8, Sections R12-5-801 thru R12-5-803 (Supp. 93-3).*

Section
R12-5-801. Rights-of-way
R12-5-802. Reservoir, Dam, and Other Sites
R12-5-803. Application of this Article to Public Trust Land

**ARTICLE 9. EXCHANGES**

*Article 9, consisting of Sections R12-5-179 thru R12-5-199, renumbered to Article 9, Sections R12-5-901 thru R12-5-921 (Supp. 93-3).*

Section
R12-5-901. Scope of Rules
R12-5-902. Definitions
R12-5-903. Informal Opinion
R12-5-904. Application
R12-5-905. Filing Fee
R12-5-906. Appraisal Fee
R12-5-907. Classification
R12-5-908. State Lands Not to be Exchanged
R12-5-909. Valuation of Land
R12-5-910. Maps and Photographs
R12-5-911. Exchange Without Public Hearing
R12-5-912. Notices
R12-5-913. Lands Conveyed to the State
R12-5-914. Title, Reservations, Restrictions, and Encumbrances
R12-5-915. Exchange Requiring Public Hearing
R12-5-916. Notice to Interested Parties
R12-5-917. Evidence of Title
R12-5-918. Controversy as to Title or Leasehold Rights
R12-5-919. Judicial Notice
R12-5-920. Compensation for Permanent Improvements
R12-5-921. Exchange of Road Rights-of-way over State Land

**ARTICLE 10. TIMBER SALES**

*Article 10, consisting of Sections R12-5-200 thru R12-5-211, renumbered to Article 10, Sections R12-5-1001 thru R12-5-1022 (Supp. 93-3).*

Section
R12-5-1001. Qualifications of Applicants
R12-5-1002. Sale of Timber
R12-5-1003. Application for Purchase of Saw Timber
R12-5-1004. Sale or Lease of Natural Products
R12-5-1005. Application to Purchase Natural Products
R12-5-1006. Application to Lease or Permit to Remove Natural Products
R12-5-1007. Rentals and Royalties
R12-5-1008. Form of Natural Products Lease or Permit and Provisions Thereof
R12-5-1009. Monthly Reports
R12-5-1010. Surface Damage
R12-5-1011. Application to Assign
R12-5-1012. Rights of Lessee or Permittee

**ARTICLE 11. SPECIAL USE PERMITS**

*Article 11, consisting of Section R12-5-241, renumbered to Article 11, Section R12-5-1101 (Supp. 93-3).*

Section
R12-5-1101. Policy; Use of Lands

**ARTICLE 12. REPEALED**

*Article 12, consisting of Section R12-5-1201, adopted summary rules filed December 6, 1996; interim effective date of August 30, 1996, now the permanent effective date (Supp. 96-4).*

*Article 12, consisting of Section R12-5-1201, repealed by summary action with an interim effective date of August 30, 1996; filed with the Office of the Secretary of State August 8, 1996 (Supp. 96-3).*

*Article 12, consisting of Section R12-5-301, renumbered to Article 12, Section R12-5-1201 (Supp. 93-3).*

**ARTICLE 13. REPEALED**

*Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996, now the permanent effective date (Supp. 96-3).*

*Article 13, consisting of Sections R12-5-1301 and R12-5-1302, repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2).*

*Article 13, consisting of Sections R12-5-1301 and R12-5-1302, repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2).*

*Article 13, consisting of Sections R12-5-1301 and R12-5-1302, renumbered from Article 5, Sections R12-5-501 and R12-5-502 (Supp. 93-3).*

**ARTICLE 14. REPEALED**

*Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996, now the permanent effective date (Supp. 96-3).*

*The heading for Article 14 was repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2).*

**ARTICLE 15. REPEALED**

*Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).*

*The heading for Article 15 was repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2).*

**ARTICLE 16. REPEALED**

*Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).*

*Article 16, consisting of Sections R12-5-1601 thru R12-5-1612, repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2).*

*Article 16, consisting of Sections R12-5-560 thru R12-5-564, renumbered to Article 16, Sections R12-5-1601 thru R12-5-1605; Sections R12-5-1605 thru R12-5-1612 renumbered from Article 16, Sections R12-5-570 thru R12-5-576 (Supp. 93-3).*

**ARTICLE 16.1. RENUMBERED**

*Article 16.1, consisting of Sections R12-5-570 thru R12-5-576, renumbered to Article 16, Sections R12-5-1606 thru R12-5-1612 (Supp. 93-3).*

**ARTICLE 17. NATURAL RESOURCE CONSERVATION DISTRICTS**

*Article 17, consisting of Sections R12-5-600 thru R12-5-623, renumbered to Article 17, Sections R12-5-1701 thru R12-5-1724 (Supp. 93-3).*

Section

R12-5-1701. Scope of Rules and Regulations Governing Natural Resource Conservation Districts
R12-5-1702. General Policy of Rules and Regulations for Natural Resource Conservation Districts
R12-5-1703. Petition for Natural Resource Conservation District
R12-5-1704. Contents of Petition
R12-5-1705. Qualifications for Acceptable Petition
R12-5-1706. Hearing on Petition; Notice
R12-5-1707. Conduct of Hearing
R12-5-1708. Determination by Commissioner
R12-5-1709. Referendum; Election of Supervisors
R12-5-1710. Proclamation of Result of Referendum
R12-5-1711. Powers of District
R12-5-1712. Limitation of Powers
R12-5-1713. Proceedings to Organize Districts
R12-5-1714. Certificate of Organization
R12-5-1715. Certificate as Evidence of Legal Establishment
R12-5-1716. State Financial Assistance to Natural Resource Conservation Districts; Application; Criteria
R12-5-1717. Yearly Requirement for Districts
R12-5-1718. Change in Boundaries; Combination or Division of Districts; Change in Name of Districts
R12-5-1719. Dissolution of District
R12-5-1720. District Supervisors; Terms of Office; Biennial Election
R12-5-1721. Power of the Commissioner to Remove District Supervisor
R12-5-1722. Organization of Supervisors; Vacancies
R12-5-1723. Powers and Duties of Supervisor
R12-5-1724. Cooperation with State Agencies

**ARTICLE 18. MINERAL LEASES**

*Article 18, consisting of Sections R12-5-701 thru R12-5-707, renumbered to Article 18, Sections R12-5-1801 thru R12-5-1807 (Supp. 93-3).*

Section

R12-5-1801. Definitions
R12-5-1802. Miscellaneous Rules
R12-5-1803. Type A Claims on State Lands
R12-5-1804. Type B Mineral Claims on State Lands
R12-5-1805. Lease for Mineral Claim
R12-5-1806. Records and Reports
R12-5-1807. Relating to Mineral Reservations

**ARTICLE 19. PROSPECTING PERMITS**

*Article 19, consisting of Sections R12-5-731 thru R12-5-735, renumbered to Article 19, Sections R12-5-1901 thru R12-5-1905 (Supp. 93-3).*

Section

R12-5-1901. Definitions
R12-5-1902. Miscellaneous Rules
R12-5-1903. Application for Permit
R12-5-1904. Terms and Conditions of Mineral Exploration Permit
R12-5-1905. Conversion of Permitted Acreage to Mineral Lease

**ARTICLE 20. COMMON MINERAL MATERIALS AND NATURAL PRODUCTS**

*Article 20, consisting of Sections R12-5-771 thru R12-5-779, renumbered to Article 20, Sections R12-5-2001 thru R12-5-2009 (Supp. 93-3).*

Section

R12-5-2001. Definitions
R12-5-2002. Miscellaneous Rules
R12-5-2003. Application for Purchase
R12-5-2004. Exploration Permits
R12-5-2005. Use of Land
R12-5-2006. Notice and Conduct of Competitive Sales
R12-5-2007. Common Mineral Materials
R12-5-2008. Natural Products -- Groundwater
R12-5-2009. All Other Natural Products

**ARTICLE 21. OIL AND GAS LEASES**

*Article 21, consisting of Sections R12-5-781 thru R12-5-802, renumbered to Article 21, Sections R12-5-2101 thru R12-5-2122 (Supp. 93-3).*

Section

R12-5-2101. Definitions
R12-5-2102. Who May Lease for Oil and Gas -- Qualified Lessees
R12-5-2103. Applications for Noncompetitive Oil and Gas Leases
R12-5-2104. Applications for Noncompetitive Leases -- Time for Filing
R12-5-2105. Simultaneous Filings -- Conflicts
R12-5-2106. Department's Decisions -- Conflicts
R12-5-2107. Applications -- Refunds
R12-5-2108. Noncompetitive Lease Form
R12-5-2109. Acreage Limitations
R12-5-2110. Withdrawals from Leasing
R12-5-2111. Competitive Leases -- Designation and Offer of Lands for Lease
R12-5-2112. Notice of Competitive Lease Offer
R12-5-2113. Qualifications of Successful Bidder
R12-5-2114. Competitive Lease Form
R12-5-2115. Award of Lease
R12-5-2116. Surface Use
R12-5-2117. Conduct of Operations
R12-5-2118. Cooperative and Unit Agreements
R12-5-2119. Assignments
R12-5-2120. Surrender
R12-5-2121. Rental Notices
R12-5-2122. Monthly Statements

## ARTICLE 22. GEOTHERMAL RESOURCES

*Article 22, consisting of Sections R12-5-850 thru R12-5-873, renumbered to Article 22, Sections R12-5-2201 thru R12-5-2224 (Supp. 93-3).*

Section
R12-5-2201. Definitions
R12-5-2202. Who May Lease for Geothermal Resources -- Qualified Lessees
R12-5-2203. Applications -- Refunds
R12-5-2204. Terms of Lease
R12-5-2205. Lease of State Lands
R12-5-2206. Designation and Offer of Lands for Lease
R12-5-2207. Qualifications of Successful Bidder
R12-5-2208. Award of Lease
R12-5-2209. Surface Use
R12-5-2210. Environmental Protection and Conduct of Operations
R12-5-2211. Cooperative and Unit Agreements
R12-5-2212. Assignments
R12-5-2213. Surrender
R12-5-2214. Rental
R12-5-2215. Royalty
R12-5-2216. Abandonment -- Other Uses
R12-5-2217. Logs -- Reports -- Records
R12-5-2218. Repealed
R12-5-2219. Repealed
R12-5-2220. Repealed
R12-5-2221. Repealed
R12-5-2222. Repealed
R12-5-2223. Repealed
R12-5-2224. Repealed

## ARTICLE 23. BOARD OF APPEALS

(Authority: A.R.S. § 37-213 et seq.)

*Article 23, consisting of Section R12-5-901 renumbered to Article 23, Section R12-5-2301 (Supp. 93-3).*

Section
R12-5-2301. Definitions
R12-5-2302. Contents of a Notice of Appeal
R12-5-2303. Notice of Hearing
R12-5-2304. Prehearing Disclosure
R12-5-2305. Continuances
R12-5-2306. Computation of Time; Additional Time After Service by Mail
R12-5-2307. Service of Documents Other than Subpoenas
R12-5-2308. Subpoenas
R12-5-2309. Motions
R12-5-2310. Hearing
R12-5-2311. Evidence
R12-5-2312. Objection to Decision by Chairperson
R12-5-2313. Ex Parte Communications
R12-5-2314. Decision of the Board
R12-5-2315. Rehearing or Review of Decisions

## ARTICLE 24. NAVIGABLE STREAM PUBLIC TRUST LANDS

***Editor's Note: The following Article, consisting of Sections R12-5-2401 through R12-5-2405, was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

Section
R12-5-2401. Criteria for Determining Record Owners or Lessees to be Noticed of Navigability Determination
R12-5-2402. Show-Cause Hearing Related to Boundary Survey Determinations
R12-5-2403. Recording of Navigability Judgments
R12-5-2404. Release of Lands from Public Trust Status for Sale
R12-5-2405. Postponement of Hearing When Navigability has not been Adjudicated

## ARTICLE 25. CLASSIFYING TRUST LANDS AS SUITABLE FOR CONSERVATION PURPOSES

*Article 25, consisting of Sections R12-5-2501 thru R12-5-2503, adopted effective March 5, 1998 (Supp. 98-1).*

Section
R12-5-2501. Petition
R12-5-2502. Reclassification
R12-5-2503. Bond

## ARTICLE 1. GENERAL PROVISIONS

**R12-5-101. Relating to Proceedings Before the State Land Department**

Except as otherwise provided in Article 2:

1. Computation of time. In computing any period of time prescribed or allowed by these rules, by order of court or by any applicable statute, the day of the act, event, or default after which the designated period of time begins to run is not to be included; the last day of the period so computed is to be included, unless it is a Saturday, Sunday, or legal holiday, in which event the period runs until the end of the next day which is neither a Saturday, Sunday, nor a holiday. When the period of time prescribed or allowed is less than seven days, intermediate Saturdays, Sundays, and holidays shall be excluded in the computation.
2. Enlargement of time. When, by these rules or by a notice given thereunder or by order of the Commissioner, an act is required or allowed to be done at or within a specified time, the Commissioner may, for cause shown at any time in the Commissioner's discretion with notice, order the period enlarged if request therefor is made before the expiration of the period originally prescribed or as extended by a previous order or upon request made after the expiration of the specified period permit the act to be done where the failure to act was the result of excusable neglect.
3. Record. Every document and other object filed in the Department shall constitute a part of the record thereof and shall be available for public inspection except as prohibited by law.
4. Inspection of records. The records of the Department, except as prohibited by law, may be inspected by any person at any time during the office hours of the Department.
5. Withdrawal of papers. No instruments, documents, or other papers or objects on file with the Department may be taken from the Department office, except for the use of the Commissioner or the Commissioner's duly appointed deputies or employees or by order of a court of competent jurisdiction.
6. Clerical mistakes. Clerical mistakes in decisions, orders, instruments, or other records of the Department or parts thereof and errors therein arising from oversight or omission may be corrected by the Commissioner at any time on the Commissioner's own initiative or on motion of any party and after such notice, if any, as the Commissioner orders. During the pendency of an appeal, such mistakes may be so corrected before the appeal is docketed in the appellate court and thereafter, while the appeal is pending, may be corrected with leave of the appellate court.
7. Forms supplied. All applications or reports required by law or under these rules to be filed with the Department shall be submitted upon forms prescribed and furnished by the Department, unless accepted or authorized in writing by the Commissioner.
8. No application will be accepted without the payment of the required application fee and unless all answers to questions and all information and other data required by the Commissioner have been furnished.
9. Manner of signing instruments before the Department; acknowledgment. All instruments are required to be signed in the same manner as the applicant's, lessee's, or permittee's name appears of record in the Department or in the manner in which a new instrument is requested to be issued. All assignments of instruments shall be signed and acknowledged in the same manner as required for the signing and acknowledgment of a deed or conveyance of real property.

**Historical Note**

Original rule, Ch. I (Supp. 76-4). Section R12-5-101 renumbered from Section R12-5-01 (Supp. 93-3). Section repealed, new Section adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-102. Repealed**

**Historical Note**

Original rule, Subchapter A, Ch. II (Supp. 76-4). Section R12-5-102 renumbered from Section R12-5-02 (Supp. 93-3). Section repealed effective August 2, 1994 (Supp. 94-3).

**R12-5-103. Repealed**

**Historical Note**

Adopted effective May 13, 1977 (Supp. 77-3). Correction, omission from subsection (A) in Supp. 77-3 (Supp. 77-6). Section R12-5-103 renumbered from Section R12-5-03 (Supp. 93-3). Section repealed effective August 2, 1994 (Supp. 94-3).

## ARTICLE 2. PRACTICE AND PROCEDURE IN CONTESTED CASES BEFORE THE ARIZONA STATE LAND COMMISSIONER

**R12-5-201. Appointment of Hearing Officer; Disqualification**

**A.** The Commissioner may appoint a hearing officer to conduct any contested case on the Commissioner's behalf.

**B.** If a hearing officer is disqualified pursuant to this rule, or for any reason cannot continue to preside at the hearing of a contested case, a new hearing officer may by appointed.

**C.** Any party may file a request to disqualify the hearing officer for cause.

1. The request shall be filed with the Department within ten days of service of the initial notice of hearing or prehearing conference or within five days after the discovery of facts indicating cause exists to disqualify the hearing officer.
2. The request shall be accompanied by an affidavit setting forth the facts that show cause for disqualification.
3. The request shall allege one or more of the following causes for disqualification:
   a. That the hearing officer, if a lawyer, has represented a party to the contested case before the Department within the past two years;
   b. That the hearing officer has a financial interest in the outcome of the contested case;
   c. That the hearing officer is related to a party;
   d. That the hearing officer has been employed by a party, other than the Department, within the past two years;
   e. That the hearing officer is a witness;
   f. That the party filing the affidavit has cause to believe and does believe that the party cannot obtain a fair and impartial hearing because of the bias, prejudice, or interest of the hearing officer.
4. While a request to disqualify is pending before the Commissioner, the hearing officer shall take no further action in the contested case except to make such temporary orders as are necessary to prevent immediate and irreparable injury, loss, or damage from occurring.

**Historical Note**

Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-202. Initiation of a Contested Case**

**A.** A contested case may be initiated by the Department on its own volition.

**B.** The following persons may request a hearing:

1. Any person whose legal rights, duties, or privileges have been directly and adversely affected by a written order or decision of the Commissioner concluding a matter under consideration by the Department, if that order or decision is not preceded by an opportunity for a hearing;
2. Any person whose legal rights, duties, or privileges are required to be determined after an opportunity for a hearing by statute, rule, or as otherwise provided by law;
3. After a notice of default or failure to comply has been mailed, any lessee or certificate-of-purchase holder, or any person who has registered with the Department as a mortgagee or other lienholder of the interest of the lessee or certificate holder.

**C.** A request for hearing shall be filed within the time allowed by statute to cure or comply. The purpose of the hearing shall be to determine whether a formal cancellation order shall be entered, and any other issues relevant to the cancellation that are within the jurisdiction of the Commissioner to decide. Notwithstanding subsections (A) and (C) of this rule, no opportunity for a hearing shall be granted when automatic termination of a lease or automatic cancellation of a certificate of purchase is mandated by statute.

**D.** No other person has standing to initiate a contested case.

**E.** Unless a different period is provided by statute, rule, or within the order or decision, a request for hearing shall be filed within 20 days of mailing, by certified mail, of the Commissioner's order or decision.

**F.** The hearing shall take place before the Commissioner or before the Board of Appeals, whichever has jurisdiction to hear the matter.

**G.** The Department shall initiate a contested case by serving a copy of the notice of hearing on the named parties.

**H.** If no request for a hearing is timely filed, the order or decision of the Commissioner shall be final and not subject to further review.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-203. Request for Hearing**

When a request for a hearing is filed with the Department, the request shall be in writing and shall state the specific actions of the Department which are the basis of the hearing request and the statute, rule, or other legal basis entitling the person to a hearing.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-204. Denial of Request for Hearing**

If the Commissioner denies the request for a hearing, the denial shall be in writing and shall state the reasons therefor. A denial of a request for hearing is final and not subject to further administrative review.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-205. Failure to Appear; Default**

**A.** If, after being served by the Department with notice, a party fails to appear at the time and place of hearing, or prehearing conference, or other proceeding of a contested case, the hearing officer may serve upon all parties a proposed default order that includes a statement of the reasons to default the nonparticipating party.

**B.** Within seven days after service of a proposed default order, the party against whom it was issued may file a written request to vacate the proposed default order, including a statement of the reasons it should be vacated.

**C.** Before the default order is vacated or entered, the hearing officer may either adjourn the proceedings or conduct them without the party against whom a proposed default order was issued, maintaining due regard for the interest of justice and the orderly and prompt conduct of the proceedings.

**D.** The hearing officer shall either enter or vacate the default order promptly after expiration of the time specified in subsection (B) of this rule or upon filing of the request to vacate.

**E.** After entering a default order, the hearing officer may conduct any further proceedings necessary to complete the contested case without the defaulted party and shall determine all issues in the hearing, including those affecting that party.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-206. Amendment of Notice of Hearing; Request for More Definite Statement**

**A.** No later than ten days after a notice of hearing is issued, a party may request a more definite statement of the issues or assertions or both. If the request is granted, the hearing officer shall set a date for filing a more definite statement.

**B.** At any time before the hearing commences, the Department may amend the notice of hearing to add additional issues or make additional assertions. The hearing officer may reschedule the hearing, maintaining due regard for the interests of justice and the orderly and prompt conduct of the proceedings.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-207. Communications Regarding Matters Related to Contested Case**

Once a notice of hearing has been issued, all communications relating to the contested case between any person listed in paragraph (1) and any person listed in paragraph (2) below shall take place in a formal hearing or conference, in the presence of all parties or their attorneys, if represented, or be filed in accordance with R12-5-215.

1. Any party, any person whose interest may be affected by the outcome of the case, or any person acting on behalf of any of them.
2. The Commissioner, the Deputy Commissioner, or any officer of the Department, if acting as the decision-maker in the Commissioner's stead, any member of the Commissioner's staff involved in the decisional process, or the hearing officer.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-208. Representation**

Parties may participate in the hearing in person or through an attorney, except that a corporation shall be represented by an attorney. A partnership may appear through any partner, an association through a key administrator or other executive officer, and an agency or a governmental subdivision or unit of a governmental subdivision may appear through an employee.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-209. Notice of Hearing or Prehearing Conference**

**A.** The notice of hearing shall contain:

1. A caption referencing the official Department case number and a brief matter name or the names of the parties and their status, or both;

2. The time, place, and nature of the hearing;
3. A statement of the legal authority and Jurisdiction under which the hearing is to be held;
4. A short, plain statement of the subject matter and issues presented, with citation to any statute or rule relied upon;
5. The name, mailing address, and telephone number of the hearing officer;
6. The names and mailing addresses of persons to whom notice is being given, including any attorney or employee who has been designated to appear for a Department Division; and
7. Any other matters required by statute or rule.

**B.** The notice may set the time, place, and subject matter of a prehearing conference and include any other matters the presiding officer considers desirable to expedite the proceedings.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-210. Contested Case Record**

**A**. After the notice of hearing is issued, the contested-case file shall be available for inspection upon request during regular business hours.

**B.** All hearings shall be electronically or stenographically reported. The hearing officer shall designate the official record of the proceedings. This rule shall not be construed as prohibiting or limiting any person from having the proceedings stenographically reported or from making their own recording, so long as the proceedings are not disrupted by the recording equipment or operators. The cost of a court reporter and the transcript shall be paid by the person making the request, unless assessment of the cost is waived by the Department. When hearings are recorded electronically, tapes shall be available for review during regular business hours. The cost of copies of tapes shall be paid by the person requesting them. The original transcript of the official record of any proceeding, if available, shall be filed as a part of the case file.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-211. Intervention**

**A.** A person seeking to intervene in any contested case shall file a written request to intervene. Intervention shall be granted only if the hearing officer determines that:
1. The legal interests of the person requesting to intervene may be substantially affected by the outcome of the contested case;
2. Intervention will not unduly delay or bias the hearing;
3. The interest of the person requesting to intervene is not adequately represented by another party to the contested case; and
4. The proposed intervention is in the interests of justice.

**B.** The request shall state the claims or defenses for which intervention is sought, briefly describing the interests that may be affected by the outcome of the case and including such facts as demonstrate those interests, and may address the other issues to be determined by the hearing officer.

**C.** The request shall be filed and served upon all parties at least 15 days prior to hearing.

**D.** Any party may file a response to the request to intervene within five days of service of the request upon the party.

**E.** The hearing officer shall decide on the request to intervene at least three days prior to the hearing date and shall promptly notify the person requesting to intervene and all parties of the decision. The hearing officer may reschedule a hearing or prehearing conference to provide sufficient time for the parties to respond to a request to intervene or to prepare for the hearing or prehearing conference.

**F.** The hearing officer may limit the intervener's participation to issues in which the intervener has a particular interest.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-212. Consolidation and Severance**

**A.** When proceedings involving a common question of law or fact or common parties are pending before the Department, the hearing officer may, upon the hearing officer's own volition or upon request of any party, order a joint hearing on any or all the matters at issue.

**B.** In furtherance of convenience, to avoid prejudice, or when separate hearings will be conducive to expedition and economy, the hearing officer may, upon the hearing officer's own volition or upon request of any party, order any proceeding severed with respect to some or all issues or parties.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-213. Prehearing Conference, Procedure and Prehearing Order**

**A.** The hearing officer may hold a prehearing conference to consider matters set forth in subsection (B) of this rule and shall promptly notify the parties and any person whose request to intervene is pending. Any party may request a prehearing conference.

**B.** A prehearing conference may be convened to consider consolidation; severance; intervention; settlement; stipulations; clarification of issues; the extent of prehearing discovery, if any; rulings regarding issuance of subpoenas, discovery orders, and protective orders; rulings on identity of and limitation of the number of witnesses; objections to proffers of evidence; use of written presentation for direct evidence, rebuttal evidence, or cross-examination; use of telephone, television, or other electronic means as a substitute for proceedings in person; order of presentation of evidence and cross-examination; and such other matters as will promote the orderly and prompt conduct of the hearing.

**C.** The hearing officer may conduct all or part of the prehearing conference by telephone, television, or other electronic means so long as each participant in the conference has an opportunity to participate during the entire proceeding.

**D.** The hearing officer shall issue a prehearing order incorporating the matters determined at the prehearing conference. If a prehearing conference is not held, the hearing officer may issue a prehearing order based on the contested case record.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-214. Filing; Computation of Time; Extension of Time**

**A.** All papers concerning a contested case shall be filed with the Department within the time limit, if any, for such filing.

**B.** All papers filed with the Department in any contested case shall be typewritten or legibly written on paper no larger than 8 1/2 by 11 inches in size, shall contain the name and address of the party or other correspondent, shall be properly captioned and designate the title and case number, shall state the name and address of each party served with a copy, and shall be signed by the party or, if represented, by the party's attorney. The signature certifies that the signer has read the paper, that to the best of the signer's knowledge, information, and belief there is good ground to support its contents, and that it is not interposed for delay.

**C.** In computing any period of time prescribed or allowed by this Article, or any notice or order concerning a contested case, the day of the act, event, or default after which the designated period of time begins to run shall not be included. The last day of the period shall be included unless it is a Saturday, a Sunday, or a holiday, in which event the period runs until the end of the next day which is not a Saturday, a Sunday, or a holiday. The computation shall include intermediate Saturdays, Sundays, and holidays.

**D.** Whenever a party has the right or is required to do some act within a prescribed period after the service of a paper upon the party by another party, and the paper is served by mail, five days shall be added to the prescribed period. This subsection has no application to notices, orders, or other papers issued by the hearing officer or the Commissioner.

**E.** For good cause shown, the hearing officer may grant continuances and extensions of time.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-215. Service; Proof of Service**

**A.** After a notice of hearing has initiated a contested case, a copy of every paper filed by a party, or person seeking to intervene, shall be served on all parties to the contested case, or their lawyers if represented, at the same time the paper is filed. Service shall be complete at the time of personal service or on the date placed in the mail if served by certified or regular mail addressed to the last address of record in the contested case file.

**B.** The following evidences completed service:
1. If personally served, an affidavit of personal service, sworn to by the person serving the paper and stating that the server personally served the paper on the person to whom it was directed, where service was made, and the date of such service; or
2. If served by certified mail, the return receipt signed by the party served or someone authorized to act on behalf of the party served; or
3. If served by regular or certified mail, either a statement subscribed on the paper filed with the Department, or an affidavit indicating the date mailed and listing those to whom it was mailed.

**C.** The Department shall serve notices of hearing or prehearing conference; findings, conclusions, and recommended decisions of the hearing officer; and decisions and final orders, either by personal service or by certified mail. All other papers required to be served may be served by regular or certified mail or may be personally served.

**D.** When a party is represented by an attorney, service shall be made on the attorney. If a notice of hearing shows service on the Attorney General, all papers served thereafter shall be served on the Assistant Attorney General named on the notice of hearing or who later appears on behalf of a Division of the Department, or, if no Assistant Attorney General is named, then on the Attorney General, Civil Division, Land and Natural Resources Section.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-216. Subpoenas**

**A.** The hearing officer may issue subpoenas for witnesses to appear and testify at the hearing or produce books, records, documents, and other evidence, or both, on the hearing officer's own volition or at the request of a party.

**B.** A request for a hearing subpoena shall be in writing, filed with the Department, and served on each party at least seven days prior to the date set for hearing and shall state:
1. The name of the contested case, the case number, and the time and place where the witness is expected to appear and testify;
2. The name and address of the witness subpoenaed; and
3. The documents, if any, sought to be provided.

**C.** A request for a prehearing deposition or a subpoena for the production of documents prior to the hearing shall be in writing and may be granted at the hearing officer's discretion only upon a showing of a reasonable need, including facts expected to be established by the person or document subpoenaed and the reasons such facts are relevant and material and not unduly repetitious.

**D.** The person to whom a subpoena is directed shall comply with its provisions unless, prior to the date set for hearing, the hearing officer grants a written request to quash or modify the subpoena. The request shall state the reasons why it should be granted. The hearing officer shall grant or deny such request by order.

**E.** The party requesting the subpoena shall prepare it and cause it to be served upon the person to whom it is directed in the same manner as provided for service of subpoenas in civil matters before the superior court. The return of service shall be filed with the Department.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-217. Procedure at Hearing**

**A.** At the hearing the hearing officer shall regulate the course of the proceedings, giving all parties the opportunity to testify, respond, present evidence and argument, present witnesses, conduct examination and cross-examination, and submit rebuttal evidence, except as restricted by a limited grant of intervention or by the prehearing order.

**B.** The hearing officer may give nonparties an opportunity to present, under oath, oral or written statements. The hearing officer shall give all parties an opportunity to cross-examine a nonparty witness and to challenge or rebut statements of nonparties.

**C.** The hearing officer may conduct all or part of the hearing by telephone, television, or other electronic means, as long as each party has an opportunity to participate in the entire proceeding as it takes place.

**D.** All hearings are open to public observation, except where closed pursuant to an express provision of law. A hearing conducted by telephone, television, or other electronic means shall be made available to members of the public by the opportunity to view or listen to the tape of the hearing, and to inspect any transcript of the hearing that has been prepared and filed with the Department.

**E.** If for any reason a hearing officer cannot continue with a contested case, a new hearing officer shall use any existing record and may conduct such further proceedings as the interests of justice may require.

**F.** Conduct at any hearing that is disruptive or shows contempt for the proceedings shall be grounds for exclusion from further participation or observation.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-218. Evidence**

**A.** All witnesses shall testify under oath or affirmation. All parties shall have the right to present such oral or documentary evidence and to conduct such cross-examination as may be

required for a full and true disclosure of the facts. The hearing officer shall receive evidence, rule upon offers of proof, and exclude evidence the hearing officer has determined to be irrelevant, immaterial, or unduly repetitious. The hearing officer shall admit the kind of evidence on which reasonably prudent people would rely, even if it would be inadmissible in a civil court trial.

**B.** Unless otherwise ordered by the hearing officer, documentary evidence shall be limited in size when folded to 8 1/2 by 11 inches. The submitting party shall identify documentary exhibits by number or letter and party and furnish a copy of each exhibit to each party present. One additional copy shall be furnished to the Department, unless the hearing officer otherwise directs. When evidence offered by any party appears in a larger work, containing other information, the party shall plainly designate the portion offered. If the evidence offered is in such volume as would unnecessarily encumber the record, the book, paper, or document shall not be received in evidence but may be marked for identification and, if properly authenticated, the designated portion may be read into or photocopied for the record. All documentary evidence offered shall be subject to appropriate and timely objection.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-219. Stipulations**

Parties to any contested case may stipulate, in writing, agreement upon any matter involved in the proceeding. If approved by the hearing officer, agreement on matters of procedure shall be binding upon the parties to the stipulation. The hearing officer may require presentation of evidence for proof of stipulated facts for the hearing officer's consideration. No substantive matter agreed to by the parties shall be binding upon the Department unless incorporated into the decision of the Commissioner.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-220. Recommended Decision**

**A.** If a hearing officer presides at the hearing, a recommended decision shall be prepared for the Commissioner.

**B.** A recommended decision shall be delivered to the Commissioner within 30 days after the close of the hearing or the date ordered for submission of proposed findings or legal memoranda, whichever comes last, unless the Commissioner extends the period for good cause.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-221. Decision**

**A.** A decision shall include separately stated findings of fact, conclusions of law, and policy reasons for the decision if it is an exercise of the Commissioner's discretion, including the reasoning for the remedy recommended. The experience, technical competence, or specialized knowledge of the Commissioner and that of the Commissioner's staff may be utilized in evaluating the evidence.

**B.** When the Commissioner is the hearing officer, the decision shall be rendered within 60 days following the final day of the hearing or the date ordered for submission of proposed findings or legal memoranda, whichever comes last.

**C.** Within 30 days after receipt of any recommended decision from the hearing officer, the Commissioner shall render a decision adopting the recommended decision, or modifying it and setting forth the reasons for departing from the recommendation, and the evidence supporting the modification.

**D.** If no request for rehearing or review has been timely filed by a party, a decision in a contested case is effective ten days from the date served on that party and is not subject to judicial review pursuant to A.R.S. § 37-134.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

**R12-5-222. Review and Rehearing of Decision**

**A.** Except as provided in subsection (G) of this rule, any party to a contested case before the Commissioner who is aggrieved by a decision rendered in such case may file with the Department, not later than ten days from the date of service of the decision, a written request for rehearing or review of the decision. The request shall specify the particular grounds for rehearing or review.

**B.** A party may file a response to a request for rehearing or review within ten days after service of the request or amended request by any other party. The Commissioner may require the filing of written argument on any issue raised in the request and may provide for oral argument.

**C.** A rehearing of the decision may be granted for any of the following causes materially affecting the requesting party's rights:

1. Irregularity in the proceedings before the Commissioner or any order or abuse of discretion, whereby the requesting party was deprived of a fair hearing;
2. Misconduct of the Commissioner, Departmental employees, the hearing officer, or the prevailing party;
3. Accident or surprise which could not have been prevented by ordinary prudence;
4. Newly discovered material evidence which could not with reasonable diligence have been discovered and produced at the original hearing;
5. Excessive or insufficient remedies;
6. Error in the admission or rejection of evidence or other errors of law occurring in the proceedings;
7. The decision is not justified by the evidence or is contrary to law.

**D.** On review the Commissioner may affirm or modify the decision or grant a rehearing as to all or any of the parties and on all or part of the issues for any of the reasons set forth in subsection (C) of this rule. An order granting a rehearing shall specify with particularity the grounds on which the rehearing is granted, and the rehearing shall cover only those matters specified. All parties to the contested case may participate as parties at any rehearing.

**E.** The Commissioner may, on the Commissioner's volition, order a rehearing or review of the Commissioner's decision within ten days after a decision is rendered, for any reason for which a rehearing on request of a party might have been granted. The order granting such a rehearing shall specify the grounds therefor.

**F.** When a request for rehearing is based on affidavits, they shall be served with the request. An opposing party may, within ten days after the service, serve opposing affidavits.

**G.** If in a particular decision the Commissioner makes specific findings that the immediate effectiveness of such decision is necessary for the immediate preservation of the public peace, health, and safety and that a rehearing or review of the decision is impracticable, unnecessary, or contrary to the public interest, the decision may be issued as a final decision without an opportunity for a rehearing or review. If a decision is issued as a final decision without an opportunity for rehearing, any application for judicial review of the decision shall be made within the time limits permitted for applications for judicial review of the Commissioner's final decision.

**H.** If, after a timely request for rehearing or review, the decision is affirmed or modified without rehearing, the decision is final on the date affirmed or modified. If a rehearing is granted, the decision made after rehearing is final on the date rendered. A final decision is subject to judicial review pursuant to A.R.S. § 37-134.

**Historical Note**
Adopted effective August 2, 1994 (Supp. 94-3).

## ARTICLE 3. SELECTIONS, INVESTIGATIONS, CLASSIFICATIONS AND APPRAISALS

### R12-5-301. Selections

**A.** Rules and regulations covered by this Article apply only to selections of state lands. The rules and regulations contained in this Article apply only to selections of state lands under the provisions of the Enabling Act and the Taylor Grazing Act, as amended. For information concerning other subdivisions of the Land Division, the general and special rules and regulations relating to state lands should be referred to, which supplement these rules and regulations.

**B.** Classes of selections; discretion of Commissioner. State lands may be selected in three different classes:

1. The state institutional lands for the balances remaining unselected in each grant.
2. Indemnity selections for state school sections, or fractions thereof, title to which for any reason is not vested in the state.
3. Selections under the Exchange provisions of the Taylor Grazing Act, as amended.

The terms "select" and "selection" as used herein shall apply to either one or all of the above named classes.

Most selections for exchanges are made for grazing purposes and for grazing lands. However, applications for selections for other classes of land and uses may be made.

The filing of an application to select rests solely in the discretion of the Commissioner and may be made with or without application.

**C.** Policy of the Department. It is the established policy of the Department in the filing of applications to select not to break up any established grazing or ranch unit nor to select land held under lease or permit from the Federal Government by one who, in good faith, has developed a grazing or ranch unit, nor to lease said lands to another except in such rare cases as it is shown that there are clear equities in favor of the applicant to select. In such cases, the burden shall be upon the applicant to select, to change the ownership of the federal lease or permit or establish his equities and right to lease the land by clear and convincing evidence.

In no event will a lease be issued to an applicant to select unless he be such federal lessee or permittee without giving notice to the lessee or permittee of record in the appropriate Federal Land Office and affording such lessee or permittee an opportunity to file an application to lease with the State Land Department and the right of hearing.

**D.** Suspension of application. The Commissioner will hold in suspension any application to select where it is found that title or leasehold rights in the land selected are in controversy and such application to select will not be approved until such controversy is finally settled. The Department will not become a party to any controversy between different claimants in the Federal Land Office to the land sought to be selected.

**E.** Minimum amount that may be selected. No applications for selection or exchange will be accepted for any tract of land less than 40 acres or a legal subdivision thereof. Not more than one selection or legal subdivision thereof may be included in any application.

**F.** Application to select. Applications to select must be filed on Land Division form No. A-120 and completed in detail, signed under oath and accompanied by the following:

1. Application to lease for the particular type of lease desired, or an application to purchase.
2. Mineral affidavit (Land Division form No. A-122).
3. Affidavit as to springs or water holes (Land Division form No. A-123).
4. Statement from the Manager, Land and Survey Office, Phoenix, Arizona, that the land sought to be selected or exchanged is open for selection. If said land is under lease or permit to a person other than the applicant, the name and address of such lessee together with information concerning the type and term of the lease and the expiration thereof.
5. Statement from the Area Manager of the Bureau of Land Management, United States Department of the Interior, or other governmental officer having administrative jurisdiction over the land sought to be selected, giving his approval to the proposed selection.
6. The Commissioner will require the applicant to select to submit a statement of any and all lands he may have leased which may be used for base in such selection, together with a statement as to the respective values of the offered and selected lands, supported by an appraisal made by a qualified appraiser or appraisers experienced in the classification and appraisal of the type of the offered and selected lands.
7. Such other information as may be required by the Commissioner.

**G.** Preferred rights to lease selected land. An applicant to select who has an approved Taylor Grazing lease upon the land sought to be selected at the time of the selection will be recognized as having a preferred right for a state selection and shall be recognized as having a preferred right to a state lease upon said land upon the approval for patent to the state by the Bureau of Land Management of the United States Department of Interior. Likewise, an applicant to select who furnishes the necessary base to make such selection shall have a preferred right to lease except where the land sought to be selected is leased by the Federal Government to other than the applicant to select.

**H.** Issuance of leases or sale of lands included in selection. The Commissioner will not issue any lease upon selected land until the same have been approved for patent by the Bureau of Land Management, United States Department of the Interior, and classified by the Commissioner as required by law; nor will the Commissioner sell any lands included in such an application until patent is issued to the state of Arizona.

**Historical Note**
Original rule, Subchapter D, Ch. II (Supp. 76-4). Section R12-5-301 renumbered from Section R12-5-50 (Supp. 93-3).

## ARTICLE 4. SALES

### R12-5-401. Application Form

The Department requires an applicant, desirous of filing an application to purchase state lands, to use Land Division forms. An application will be subject to rejection when it is found to be erroneous, or if all questions are not fully answered.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-401 renumbered from Section R12-5-71 (Supp. 93-3).

**R12-5-402. Conditions for Filing Application**

**A.** An application shall cover only one section or subdivision thereof.

**B.** When the application is made by one claiming a right to reimbursement for improvements placed upon state land, the applicant shall attach a list of the improvements placed or made upon said lands.

**C.** The applicant to purchase state land shall deposit an amount of money sufficient to pay the expense incidental to bringing a parcel of land to sale when the Department determines that the benefit to be derived from the sale is less than the expense involved.

**D.** An application to purchase state land cannot be withdrawn without the approval of the Commissioner.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-402 renumbered from Section R12-5-72 (Supp. 93-3).

**R12-5-403. Restrictions Subsequent to Filing Application to Purchase**

No lessee may file any transfer, assignment, mortgage or application affecting the lands covered in their application to purchase.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-403 renumbered from Section R12-5-73 (Supp. 93-3).

**R12-5-404. Responsibility of the Purchaser**

**A.** The recording of a Certificate of Purchase and/or Patent with the County Recorder of the County in which the lands are located.

**B.** Payment of the taxes, water assessments and other charges which may be assessed against the land.

**C.** Protection of the lands against any loss or waste to or upon the lands.

**D.** To maintain any right to the use of water appurtenant to the land against forfeiture or abandonment of the right.

**E.** File a report with the State Land Commissioner of the sale of any sand, gravel, stone or other natural product from the land.

**F.** Acquire the consent of the Department prior to granting a right- of-way on the land.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-404 renumbered from Section R12-5-74 (Supp. 93-3).

**R12-5-405. Evidence of Taxes and Assessments Being Paid**

**A.** Receipt of taxes and/or assessments having been paid, for the current year must accompany the annual payments of principal and interest for a certificate of purchase.

**B.** No extension of time will be granted for the payment of annual installments of principal on a Certificate of Purchase until current interest on unpaid principal balance has been paid and evidence of taxes and/or assessments having been paid is submitted to the Department.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-405 renumbered from Section R12-5-75 (Supp. 93-3).

**R12-5-406. Assignment of a Certificate of Purchase**

**A.** The transfer of a Certificate of Purchase will be made only upon the filing of an "Application to Assign and Assumption of Certificate of Purchase" form which will be supplied by this Department.

**B.** An application to assign and assumption of a Certificate of Purchase will not be approved:
1. When the annual payments are found to be in arrears.
2. When taxes are found to be in arrears.
3. When the release or satisfaction of a lien or mortgage filed with the Department has not been submitted with said application.
4. When affidavit of citizenship in the United States and/or statement of authorization to do business in the state of Arizona has not been submitted with said application.

**C.** No portion, less than all of the lands covered in a Certificate of Purchase, can be assigned.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-406 renumbered from Section R12-5-76 (Supp. 93-3).

**R12-5-407. Requirement for Replacing a Certificate of Purchase**

When a Certificate of Purchase is lost, destroyed or wrongfully withheld from the owner thereof, the State Land Department, may upon the filing of an affidavit of such loss, issue a new Certificate of Purchase to the owner.

**Historical Note**
Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-407 renumbered from Section R12-5-77 (Supp. 93-3).

**R12-5-408. Partial Patent**

**A.** The owner of a Certificate of Purchase shall use a Department form when filing an Application for Patent on Part of a Certificate of Purchase, which must be accompanied by:
1. $5.00 filing fee.
2. A deposit of $350.00, to be applied to the cost of appraisal of the land and improvements, if any.
3. A plat of survey (drawing size 17" x 26") by a Registered Civil Engineer, showing the lands covered by the Certificate of Purchase and the lands described in this application.
4. Original copy of Certificate of Purchase from which this partial release to patent is requested.
5. A document showing Satisfaction or Release of Mortgage or other encumbrances covering lands to be patented.
6. A notarized or other duly authenticated document setting forth the name of the person authorized to sign for a individual, partnership, group, company, corporation, etc.

**B.** No consideration will be given applications to patent a part of a Certificate of Purchase which is in default, as to payment of principal, interest, taxes or any other default.

**C.** If the application or any of its attachments is deficient, the Commissioner shall immediately notify the applicant of the deficiency and the applicant shall within 20 days, or such further time as the Commissioner may allow, remedy such deficiency, otherwise the application shall be deemed withdrawn.

**D.** Upon the filing of a proper application, the Commissioner shall appraise the parcel to be patented and improvements, if any, and upon completion of the appraisal, if the Commissioner finds that it is for the best interest of the state to patent said parcel, the Commissioner shall make an order authorizing the patenting of the land and setting forth the appraised value of the land and improvements. If the Commissioner finds that

it is not in the best interest of the state to allow patenting of said parcel, the application shall be rejected by order of the Commissioner.

**E.** Orders whether authorizing the patenting of the land or rejecting the application shall be issued by the Commissioner within 60 days after the completion of the appraisal.

**F.** If the purchaser fails to complete any of the required payments within 60 days or such further time as may be granted in writing by the Commissioner, the application shall be deemed to have been withdrawn by the applicant.

**Historical Note**

Original rule, Subchapter C, Ch. II (Supp. 76-4). Emergency amendment filed September 26, 1990, adopted effective September 27, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Section R12-5-408 renumbered from Section R12-5-78 (Supp. 93-3).

**R12-5-409. Terms and Condition of Sale of State Land to Governmental Agencies of the State or Political Subdivisions and Municipal Corporations Thereof**

**A.** A patent may issue to governmental agencies of the state or political subdivisions and municipal corporations thereof making an application for the purchase of state land, provided:

1. The appraised value of the land as established by the Commissioner has been paid in full and all other pertinent requirements of the State Land Department have been complied with as provided under the laws, rules and regulations governing sales of state land.

**B.** A Certificate of Purchase contract may be entered into between the State Land Department and the applying governmental agencies of the state or political subdivisions and municipal corporations thereof, provided:

1. The application fee for same has been paid.
2. All requirements relating to the appraisal have been complied with.
3. The pertinent terms and conditions are agreed to as are provided for Certificates of Purchase contracts under public auction sale of state land.

**Historical Note**

Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-409 renumbered from Section R12-5-79 (Supp. 93-3).

**R12-5-410. Sale of State Land to Governmental Agencies of the State or Political Subdivisions and Municipal Corporations Thereof, A.R.S. § 37-461**

Any state land may be sold to governmental agencies of the state or political subdivisions and municipal corporations thereof, without public auction, provided:

1. That all pertinent requirements of Article 3, §§ 37-231 through 37-255 are complied with except the provisions providing for public auctions.

**Historical Note**

Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-410 renumbered from Section R12-5-80 (Supp. 93-3).

**R12-5-411. Mineral Reservation**

**A.** Lands sold prior to July 9, 1954, in the state of Arizona reserved no minerals.

**B.** All sales, grants, deeds or patents to any state lands sold between July 9, 1954, and March 18, 1968, shall be subject to and shall contain a reservation to the state of an undivided one-sixteenth of all oil, gases and other hydrocarbon substances, coal or stone, metals, minerals, fossils and fertilizer of every name and description, together with all uranium, thorium, or any other material which is or may be determined by the laws of the state, the United States, or decisions of courts to be peculiarly essential to the production of fissionable materials, whether or not of commercial value.

**C.** All state lands sold after March 18, 1968, shall be sold with the reservation that all oil, gas, other hydrocarbon substances, helium or other substances of a gaseous nature, coal, metals, minerals, fossils, fertilizer, of every name and description, together with all uranium, thorium, or any other material which is or may be determined by the laws of the United States, or of this state or decisions of court, to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, and the exclusive right thereto, on, in, or under such land, shall be and remain and be reserved in and retained by the state, provided, that the reservation shall not include "common mineral products, minerals, and property" as defined in Section 27-272, subsection (A).

**Historical Note**

Original rule, Subchapter C, Ch. II (Supp. 76-4). Section R12-5-411 renumbered from Section R12-5-81 (Supp. 93-3).

**R12-5-412. Terms and Conditions for Extensions of Payments of Certificates of Purchase**

**A.** A purchaser in default as set forth in A.R.S. § 37-247 may, no later than 60 days after the date of notice of forfeiture provided in A.R.S. § 37-247(A), apply on the proper departmental form to pay the amount delinquent at a later date acceptable to the Commissioner but in no event more than two years beyond the date of the delinquency.

**B.** If the application is granted, the delinquent amount, including principal, interest and penalties, shall bear interest at a rate to be specified by the Commissioner at the time of the application. Specification of interest by the Commissioner may be changed to reflect competitive fluctuations in the money market. However, such changes in interest rates shall not affect the interest rates applicable to previous applications.

**C.** Should the Commissioner fail to specify an interest rate at the time of the application, then the applicable interest shall be 10% per year.

**D.** Any extension hereunder granted may be further extended, subject to the then specified interest rate, by the Commissioner, provided that the total of such extensions can in no case exceed two years beyond the date of the delinquency.

**Historical Note**

Adopted effective March 6, 1979 (Supp. 79-2). Section R12-5-412 renumbered from Section R12-5-82 (Supp. 93-3).

**R12-5-413. Real Estate Broker Commissions**

**A.** The Commissioner may offer a commission for the sale or long-term commercial lease of state land at public auction. In determining whether to offer a commission for the sale or long-term commercial lease of state land at public auction, the Commissioner shall consider the following factors:

1. The appraised value of the parcel being offered,
2. The location and size of the parcel being offered,
3. The terms of the sale or lease,
4. The marketability of the land, and
5. The best interest of the State Trust.

**B.** If a commission is offered for the sale or long-term commercial lease of state land at public auction, the commission shall be the amount collected pursuant to A.R.S. § 37-108(A)(10)(a).

**C.** The Department shall publish the decision of the Commis-

sioner to pay or not to pay a commission for the sale or long-term commercial lease of state land and the amount and terms of the commission offered, if any, in the public notice of the auction.

**D.** Upon determination by the Commissioner that a commission shall be offered on a sale or long-term commercial lease, a person holding an active Arizona real estate broker license is eligible to receive the commission, from the Department, by registering with the Department the successful purchaser or lessee at public auction. The broker shall register himself or herself and the potential purchaser or lessee with the Department no later than 3 business days before the auction. Registration shall be in writing and include the following:
1. Name and address of the brokerage;
2. Name and real estate license number of the broker and any real estate salesperson acting as an agent for the broker at the public auction;
3. Name and address of the potential purchaser or lessee;
4. Auction number, location, and parcel number of the land to be auctioned for sale or lease; and
5. Signature of the broker or salesperson and the potential purchaser or lessee verifying that the broker or salesperson represents the potential purchaser or lessee and that together they have inspected the land to be auctioned for sale or lease.

**E.** A broker shall submit registration meeting the requirements of subsection (D) by mail or hand-delivery to the Department's public counter located at 1616 West Adams, Phoenix, Arizona 85007. Registration shall be deemed received by the Department on the date postmarked if mailed or time-stamped if hand-delivered. A broker shall not register the following:
1. A potential purchaser or lessee who is registered with another broker for the same auction, or
2. A governmental agency.

**F.** The Department shall pay the commission to the broker representing the successful purchaser or long-term commercial lessee at the time of delivery of the certificate of purchase or patent, or lease, or after final disposition of any protests or appeals resulting from the auction, whichever occurs later.

**G.** The Department shall not pay a commission to a broker if the Commissioner determines that the broker has violated this rule.

**H.** For the purpose of this Section, the following definitions apply:
1. "Long-term commercial lease" means a lease granted on state land for a term in excess of 10 years, but not more than 99 years, for commercial purposes to the highest and best bidder at public auction.
2. "Commercial lease" means an agreement by which an owner of real property (lessor) gives the right of possession to another (lessee) for a specified period of time (term) and for a specified consideration (rent).

**Historical Note**
Adopted effective February 9, 1996 (Supp. 96-1).

## ARTICLE 5. LEASES

### R12-5-501. Land Subject to Lease or Permit

All state lands shall be subject to lease or permit without advertising for a term of not more than ten years for agricultural, grazing, commercial, right-of-way, natural products, special use, or homesite purposes; for oil and gas for a term of five years and as long thereafter as oil, gas or other hydrocarbon substances are procured and produced therefrom in paying quantities; for mineral purposes for a term of 20 years.

An application to lease open or unleased land may be accepted by the Commissioner at any time.

The leasing of state lands for a term longer than prescribed above shall be offered at public auction in the same manner and under the same procedure as required for the sale of state lands.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-501 renumbered from Section R12-5-100 (Supp. 93-3).

### R12-5-502. Classification and Reclassification by Commissioner

All state lands, except for those under mineral and oil and gas lease application, shall be classified by the Commissioner prior to the lease thereof and shall be leased only under the classification fixed by the Commissioner, unless such land is reclassified as provided by law. The Commissioner shall have the power to reclassify such lands from time to time when he deems such reclassification to be for the best interests of the state, and all leases and permits shall be subject to such reclassification.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-502 renumbered from Section R12-5-101 (Supp. 93-3).

### R12-5-503. Qualifications Necessary to Lease State Land

Any person 18 years of age or over, a citizen of the United States or who has declared an intention to become a citizen of the United States, or any firm, association or corporation which has complied with the laws of the state, shall be qualified to lease state land.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-503 renumbered from Section R12-5-102 (Supp. 93-3).

### R12-5-504. Applications for Lease or Permit

Unless otherwise prescribed by law or these rules and regulations, no lease or permit will be granted without application therefor completely filled out on forms prescribed from time to time by the Commissioner and signed and sworn to by the applicant or his authorized agent or attorney, and filed with the Commissioner. In lieu of signing and swearing to the same before a notary public or other person authorized to take acknowledgments, the applicant may affix his signature to the application, accompanied by a certification, under penalty or perjury, that information contained and statements therein made are to the best of his knowledge and belief true, correct and complete, and such application shall be accepted as being duly executed.

Except as specifically provided by law and these rules and regulations, the order of filing an application for lease or permit shall not be a controlling factor as to who is entitled to such lease or permit.

Any application filed with the Commissioner which does not substantially conform with these rules and regulations or the provisions of law may be rejected by the Commissioner or such application may be held by the Commissioner for a period not to exceed 60 days, within which time such applicant may amend his application for lease or permit in conformity with the order of the Commissioner, and the date of filing such amended application for lease or permit shall relate back to the date of the original filing of such application.

The Commissioner will indicate on the application in the space provided therefor his approval or denial of said application, which approval or denial will be entered in the records of the Commissioner.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-504 renumbered from Section R12-5-103
(Supp. 93-3).

**R12-5-505. Application for Land Included under Existing Lease or Permit**
Where an application for lease or permit covers land already under lease or permit for the same purposes, such application will be rejected by the Commissioner to the extent that the lands described therein are included within an existing lease or permit.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-505 renumbered from Section R12-5-104
(Supp. 93-3).

**R12-5-506. Two or More Applications for Lease or Permit**
Except as otherwise provided by law or specifically by these rules and regulations, if two or more applicants apply for lease or permit on the same land for the same purpose, the Commissioner shall approve the application of the one who, after investigation or hearing by the Commissioner, appears to have the best right to such lease or permit. If it appears that none of the applicants has any right or equities superior to those of another, the Commissioner may reject and deny all applications, or he may at a stated time and after due notice to all such applicants, receive sealed bids submitted in accordance with such requirements he may make, and shall approve the application of the bidder who, in all respects, is eligible to holding a lease or permit upon the land and will pay the highest annual rental therefor, or the Commissioner may reject all bids.

If such lands are offered for bid, the Commissioner shall issue a notice for call of sealed bids, stating in said notice the time and place said sealed bids will be accepted and the minimum rental there for that will be accepted by the Commissioner. A copy of the form of lease that will be issued to the successful bidder in bidding will be enclosed with said notice, together with the written form of bid to be submitted by the successful bidder.

Said bids shall be submitted on the form enclosed in the notice, filled out and signed by the bidder, placed in an envelope addressed to the State Land Commissioner with the number of the bid on the outside thereof, together with the first year's rental at the annual rental bid. Failure to provide the annual rental amount or receipt of a check for the amount drawn on insufficient funds, will give the Commissioner the right to withdraw the bid covered by these insufficient funds. Money received from an unsuccessful bidder will be returned following award of the lease or permit. The envelope with enclosures may be delivered in person or placed in an envelope and mailed to the State Land Commissioner. No bid will be received from anyone other than the applicants named in said notice and call for sealed bids.

At the time and place stated in said notice and call for bids, the bids will be opened and publicly read by the Commissioner, or his representative, and no bid will be considered for an annual rental less than the minimum rental stated in said notice and call for sealed bids.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-506 renumbered from Section R12-5-105
(Supp. 93-3).

**R12-5-507. Judicial Notice**
The Commissioner may take notice of judicially cognizable facts. In addition, notice may be taken of generally recognized technical or scientific facts within the Commissioner's specialized knowledge; and the Commissioner's experience, technical competence and specialized knowledge may be utilized in the evaluation of any information and evidence submitted to him.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-507 renumbered from Section R12-5-106
(Supp. 93-3).

**R12-5-508. Application Confers No Right to Land**
An application or permit for state land confers no right of occupancy, possession or use of said land until a lease or permit is issued thereunder or permission is granted in writing by the Commissioner. Provided, however, a prior lessee or permittee may occupy and use said land pending action on his application for renewal. In the event that the prior lessee or permittee should not be awarded a renewed lease or permit, the Commissioner may assess and collect from said lessee or permittee the reasonable value of the use of said land pending action upon the application to renew said lease or permit.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-508 renumbered from Section R12-5-107
(Supp. 93-3).

**R12-5-509. Execution of Leases or Permits; Covenants; Effective Date and Completion of Lease or Permit**
All leases and permits shall be signed by the lessee or permittee as provided by these rules and regulations and by the Commissioner or his Deputy, with the seal of the Department affixed thereto. All leases and permits shall contain such provisions, covenants, conditions and restrictions as may be prescribed by the Commissioner, hereinafter more particularly set forth under each type of lease. The effective date of the lease will be the date of application upon open land, or such other subsequent date as the Commissioner may prescribe. Upon lands previously leased, the date following the expiration date of the lease shall be the effective date; provided, that where the lands under lease have been reclassified, the effective date of the lease shall bear the date of such reclassification, if no appeal from reclassification is taken or if the Commissioner's decision is upheld if so appealed, or such other subsequent date as the Commissioner may prescribe.

Upon approval of the application to lease or permit and an appraisal or fixing of the rental value thereof, a lease or permit in duplicate will be mailed to the lessee or permittee, which lease or permit shall be signed in duplicate by the lessee or the permittee in the manner prescribed by these rules and regulations. Insert sheets which, when required, described the land being leased or for which permit is issued are a part of the lease or permit and shall be signed in the same manner as the lease or permit. A statement of the rental due and the permit or lease issuance fee will accompany the transmittal of the lease or permit. Upon the lease and permit and insert sheets, when required, being signed, they are to be returned to the Commissioner with the rental payment and lease or permit issuance fee in accordance with the statement rendered. When the lease or permit and insert sheets, when required, are received by the Commissioner, the same will be executed by the Commissioner as above provided and entered upon the records of the Commissioner. After execution by the Commissioner, one copy of the lease or permit, including the insert sheets when required, will be returned to the lessee or permittee with a receipt for the payment of rental.

If the lease, permit and insert sheets, when required, are not executed by the lessee or permittee and returned to the Commissioner, together with the payment of the rental as indicated by the statement therefor forwarded with such instruments, within 60 days from the date of mailing by the Commissioner, the lease or permit will be declared to be null and void and of no force and effect, and the land will become open and available for leasing by other per-

sons. Provided, however, that should the applicant object to the appraised rental value, he may appeal from said appraisement as provided by law and the rules and regulations of the Department to the Board of Appeals of the State Land Department without prejudice to his rights to the offered lease or permit.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-509 renumbered from Section R12-5-108
(Supp. 93-3).

**R12-5-510. Use of State Lands: Failure to Use**
No lessee or permittee shall use lands under lease or permit to him except for the purpose for which the lease or permit is issued, unless authorized by the Commissioner in writing.

Applications for a special use of lands under permit or lease to a lessee or permittee for purposes other than which the lease or permit was issued shall be made in writing in triplicate, and shall state in detail the reasons for such use. The application shall be signed and verified as provided for in applications for lease or permit. Upon approval of the application by the Commissioner, two copies of the application with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon will be returned by the Commissioner to the lessee or permittee, one copy thereof being retained in the files of the Commissioner.

Failure of any lessee or permittee to use the land for the purposes for which he holds a lease or permit, without having been authorized so to do by the Commissioner in writing, may, in the discretion of the Commissioner, subject said lease or permit to forfeiture or to cancellation as provided by law and these rules and regulations.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-510 renumbered from Section R12-5-109
(Supp. 93-3).

**R12-5-511. Sublease**
No lessee or permittee shall sublet his lease or permit without the written consent and permission of the Commissioner first had and obtained.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-511 renumbered from Section R12-5-110
(Supp. 93-3).

**R12-5-512. Assignments**
**A.** A lessee or permittee of state lands not in default in his rentals and who has kept and performed all the conditions of his lease or permit may, but only with the written consent of the Commissioner, assign such lease or permit.
1. Application for assignment shall be made on the appropriate form prescribed by the Commissioner.

**B.** An application for assignment of a lease or permit made within the 30 days immediately preceding the end of any lease year of the pertinent lease or permit will not be accepted for filing by the Commissioner unless the next year's advance rentals have been made.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-512 renumbered from Section R12-5-111
(Supp. 93-3).

**R12-5-513. Manner of Assignments**
Except as otherwise provided by law or these rules and regulations, assignments may be for all or part of the lands covered by a lease or permit. An application for assignment by the lessee or permittee, together with an application for transfer and assumption of lease or permit shall be submitted upon forms furnished and approved by the Commissioner. The applications shall be accompanied by the required fees, together with the lease or permit being assigned. The application for such assignment and the application for transfer and assumption of a lease or permit shall be signed by the parties as provided in these rules and regulations and acknowledged before a notary public or other officer authorized to administer oaths. The Commissioner shall indicate on the application to assign and application for transfer and assumption of lease or permit his approval or disapproval of the application, which action shall be made of record by the Commissioner.

In the event the assignment is a partial assignment and only covers a part of the leased or permitted lands, the description of the lands being transferred must be by legal subdivision or by metes and bounds based on an actual survey upon which acreage can be determined, together with a map or such survey if required by the Commissioner; otherwise no approval to said assignment and assumption will be granted by the Commissioner. An assignment may be only for a divided or undivided interest.

No assignment shall be made without the consent of all parties of record in the State Land Department in writing who may have a lien or encumbrance upon the lessee's or permittee's interest in said lease or permit.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-513 renumbered from Section R12-5-112
(Supp. 93-3).

**R12-5-514. Preference Right to Lease**
Any person residing upon contiguous land for which he has an allowed United States homestead entry or for which he has received patent from the United States upon his homestead entry, shall, upon application, when land is available for lease, have a preference right to lease such amount of contiguous state land as is necessary for his personal use.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-514 renumbered from Section R12-5-113
(Supp. 93-3).

**R12-5-515. Preferred Right of Renewal of Leases or Permits; Exceptions**
Upon application to the Commissioner, not less than 30 nor more than 60 days prior to the expiration of the lease or permit, the lessee or permittee, if he be a bona fide resident of the state, or legally authorized to transact business in this state, has a preferred right to renewal, bearing even date with the expiration of the old lease or permit, for such term not longer than as authorized by law as the Commissioner deems proper, at a reappraised rental unless otherwise provided by law; provided, however, this preferred right of renewal shall not extend to a lessee or permittee who has not substantially complied with the terms of his lease or permit or placed the land to the use prescribed in the lease or permit during the term thereof, or within the time prescribed therein, unless for good cause such failure to perform has been authorized by the Commissioner in writing; and, provided, further, if the Commissioner deems the continued leasing of said land or the issuance of a permit thereon not to be for the best interest of the state, the lease or permit shall not be renewed.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Amended effective October 4, 1978 (Supp. 78-5). Section R12-5-515 renumbered from Section R12-5-114
(Supp. 93-3).

**R12-5-516. Time for Filing Conflicting Applications**

If no application for lease or permit, other than application for renewal by a prior lessee or permittee, has been filed on or before the date of the expiration of said lease or permit, no further application shall be accepted, unless the Commissioner should determine that the prior lessee or permittee does not have a preference right to renew his lease or permit or that the continued leasing of said land is not for the best interests of the state.

Where an application is filed on open land, the Commissioner shall have authority to fix the time when no further applications shall be accepted by the Commissioner. Notice of such time shall be made of record and posted in the Department.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-516 renumbered from Section R12-5-115 (Supp. 93-3).

**R12-5-517. Rentals**

Rentals for leases and permits shall be as hereinafter fixed. All rentals must be paid annually in advance, except as may be provided in the lease or permit or otherwise authorized and directed in writing by the Commissioner.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-517 renumbered from Section R12-5-116 (Supp. 93-3).

**R12-5-518. Rental Notices**

If the rental is changed, the Commissioner shall notify the lessees and permittees at their last known address in the Commissioner's records; lessees and permittees shall be notified by the Commissioner of a change in rental, by sending a notice thereof by mail at least 30 days prior to the date upon which said rental is fixed by the Commissioner to be due, and any such notice shall be presumptively deemed to have been received on the day following which such notice is deposited in the U.S. Mail by the Commissioner.
In all other cases, the Commissioner shall mail out rental notices which rents shall be paid within 30 days or on the due date whichever is the later; the Commissioner shall assume no responsibility if the notices are not acted upon.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-518 renumbered from Section R12-5-117 (Supp. 93-3).

**R12-5-519. Extension of Period for Payment of Rental**

If the lessee or permittee shall fail to pay the rent when due, the Commissioner may, in his discretion, extend the time for the payment thereof for an additional period not to exceed 90 days, and shall in such case add to said rental a penalty of five (5%) percent and interest on such delinquent rental and penalty at the rate of ten (10%) percent per annum until paid, which said delinquent rental, penalty and interest shall be a lien on the improvements, crops and property on said land. The Commissioner shall in no event, however, extend the period for payment of rental more than three times and if the annual rental shall at any time be one calendar year in arrears, the lease or permit of the property involved shall automatically cease, and the Commissioner shall proceed by proper action to cancel the same on the books in his office.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-519 renumbered from Section R12-5-118 (Supp. 93-3).

**R12-5-520. Notice of Expiration of Lease or Permit**

The Commissioner shall not be obligated to send notice of the expiration date of any lease or permit but as a matter of practice it shall make reasonable efforts to do so.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-520 renumbered from Section R12-5-119 (Supp. 93-3).

**R12-5-521. Modification or Amendment of Existing Lease or Permit**

No existing lease or permit shall be modified or amended for a term any different than the term set forth therein unless mutually agreed upon by the Commissioner and the lessee or permittee.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-521 renumbered from Section R12-5-120 (Supp. 93-3).

**R12-5-522. Forfeiture of Lease or Permit**

A lessee or permittee violating any condition of the lease or permit shall be grounds for forfeit of such lease or permit and his rights thereunder and the Commissioner shall proceed by proper action to cancel the lease or permit and take possession of the land, or take such other steps as the interests of the state require.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-522 renumbered from Section R12-5-121 (Supp. 93-3).

**R12-5-523. Posting to Prohibit Hunting and Fishing on State Land**

State land under lease or permit may not be posted to prohibit hunting and fishing without the consent of the Arizona Game and Fish Commission.

**Historical Note**

Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-523 renumbered from Section R12-5-122 (Supp. 93-3).

**R12-5-524. Sale, Mortgage or Lien on Interest of Holder of Lease or Permit**

The interest of the holder of any lease or permit shall be subject to sale, mortgage or other lien to the same extent as patented land. No contract of sale, mortgage or other lien shall become effective unless and until an executed or conformed copy thereof showing the recording data is filed with the Commissioner. When so filed, no assignment of the lease or permit affected shall be made without the consent of all parties. Upon the foreclosure of a contract of sale, mortgage or other lien filed with the Commissioner, the Commissioner shall assign the instrument in question to the party entitled thereto.

No action shall be taken by the Commissioner affecting the rights of the lienholder, mortgagee or contract purchaser or seller affecting the canceling, modification or declaration of the lien or permit to be forfeited without written notice to all parties in interest.

If a mortgagee, trustee under a deed of trust, lienholder or other person entitled to payment, receives full satisfaction of a mortgage, deed of trust or other obligation evidence of which has been filed with the Commissioner, he shall, at the request of the person making satisfaction or the Commissioner file with the Commissioner a sufficient release or satisfaction of mortgage or deed of release of the mortgage or deed of trust or lien.

Filing of these documents in no way obligates the Commissioner to the terms of them.

The Commissioner may on his own initiative, or at the request of a lessee or permittee, request of any mortgagee, trustee under a deed of trust, lienholder or other person entitled to payment who has filed with the Commissioner evidence of an obligation as set forth above, to notify the Department in writing as to the principal balance remaining due, if any, on such obligation; such request shall be made in writing and shall be mailed by the Commissioner to the last known address of record of such obligee -- the failure of such obligee to respond within 90 days from the date of receipt of such notice shall ipso facto be deemed as a consent by such obligee to any action that may be taken thereafter by the Commissioner with respect to any land covered by such mortgage, deed of trust, contract of sale; or other instrument evidencing an obligation.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-524 renumbered from Section R12-5-123 (Supp. 93-3).

**R12-5-525. Permit for Placing Improvements on State Lands**
If a lessee, permittee, or other person having a legal interest in state lands, other than a holder of a Certificate of Purchase, desires to construct or make improvements, he shall first file with the Commissioner, an application in duplicate on each section or portion thereof upon Land Division form prescribed by the Commissioner for permission to construct or make such improvements which application shall be subject to allowance or rejection as in the discretion of the Commissioner the best interests of the state shall require. The application for permission shall describe with a reasonable degree of particularity the proposed improvements, the proposed location thereof, the estimated cost and date of commencement and completion and the purpose and need for erecting and placing such improvements, and such additional information as the Commissioner may require.

The Commissioner will either allow or deny the application and notify the applicant to such effect by endorsement thereon of his allowance or denial and return one copy of the same to the applicant.

If the Commissioner allows the application, the lessee or permittee shall, within 30 days after the completion of the improvements, file with the Commissioner in duplicate on such form as the Commissioner may prescribe a report of the same. Such report shall be under oath and shall describe the improvements, the location of the same, an itemized statement of the actual cost thereof and the date of completion. When said report is allowed by the Commissioner, the same shall be made a record with the Commissioner.

Applications to place improvements on developmental leases will not be allowed if presented to the Commissioner less than 90 days prior to the expiration date of the lease. Reports of improvements placed upon land under developmental leases will not be allowed unless filed with the Commissioner more than 60 days prior to the expiration date of the lease.

Unless such permission is granted by the Commissioner, such person shall not be entitled to reimbursement or compensation for improvements placed upon state lands, and upon the expiration or cancellation of the lease or permit, improvements placed on the land without permission shall be forfeited and become the property of the state.

The Commissioner, from time to time, but not more frequently than once a year, may require from any such lessee, permittee or person having a legal interest in state land information concerning such improvements placed thereon. Failure to make such report upon such request shall, in the discretion of the Commissioner, subject the improvements to forfeiture as aforesaid.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-525 renumbered from Section R12-5-124 (Supp. 93-3).

**R12-5-526. Basis for Appraisal of Improvements on State Lands**
Improvements placed on state lands prior to June 25, 1952, shall be appraised in accordance with the law in effect at the time the improvements were made. Improvements placed upon state lands after June 25, 1952, including water rights, when the owner thereof is entitled under law to reimbursement for the improvements, shall be appraised as follows:

1. Improvements, except eradication of noxious growth on grazing lands, and irrigation or other district assessments, shall be appraised at the time the appraisal is made on the following basis:
   a. The condition of the improvements.
   b. The current value.
   c. Their suitability for uses ordinarily made on the lands on which they are located at the time the improvements were made.
2. Reimbursement for the cost of eradication of noxious growth on grazing lands, shall be amortized at the rate of ten percent per annum.
3. Reimbursement for irrigation or other district assessments and levies which have been largely assessed and levied against state lands, and the interest of the holders of such lands, whether under lease or permit, shall be limited to that portion of the assessments and levies which have been properly and legally assessed and levied to defray such district or project construction charges.
4. Pumps especially designed for the well in which placed shall be reimbursable improvements and shall be appraised as other reimbursable improvements.
5. The cost of improvements for clearing and leveling land for agricultural purposes shall remain as a credit for the lessee in case of sale of the land. Any reimbursement for the cost of clearing and leveling land used for agricultural purposes remaining unamortized on the effective date of this Section shall not be amortized, but such unamortized balance shall remain as a credit for the lessee in case of sale of the lands.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-526 renumbered from Section R12-5-125 (Supp. 93-3).

**R12-5-527. Improvements; Removal**
All improvements placed upon state lands shall, until they become the property of the state, be subject to assessment for taxes, in the name of the owner, as other property. The lessee or permittee within 60 days prior to, or 90 days following, the expiration of his lease or permit may remove from the land the removable improvements belonging to him, the removal of which will not injure the lands, subject to any lien the state may have upon such improvements. The retiring lessee or permittee may, with the written consent of the Commissioner and within the time for removal, sell his improvements to the succeeding lessee or permittee.

No right to claim any improvements is conferred upon any person who does not have a lease or permit upon the lands upon which the improvements are located, or who has not acquired the improvements on the lands through a prior lessee or permittee.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-527 renumbered from Section R12-5-126
(Supp. 93-3).

**R12-5-528. Reimbursement for Improvements by Succeeding Lessee, Permittee or Purchaser**
The lessee or permittee of state lands shall be reimbursed by a succeeding lessee, permittee or purchaser of state lands for improvements placed thereon which are not removable. The appraisal thereof and the method of payment shall be as is prescribed by law.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-528 renumbered from Section R12-5-127
(Supp. 93-3).

**R12-5-529. Cooperation with the Commissioner**
Lessee or permittees of state lands shall cooperate with the Commissioner in making all classifications and appraisals. Lessees or permittees, or applicants for leases and permits, shall furnish such information requested by the Commissioner pertaining to the use proposed by the lessee or permittee and in connection with other property so held by him as part of a unit. All such information so furnished by such persons, except that pertaining to state lands, shall be considered confidential by the Commissioner and shall not be open for public inspection.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-529 renumbered from Section R12-5-128
(Supp. 93-3).

**R12-5-530. Application for Reclassification or Reappraisal**
Any person, including an existing lessee or permittee, desiring to have any state land reclassified or reappraised shall make an application therefor to the Commissioner on such form as the Commissioner may prescribe and shall submit therewith his application to lease said lands for the reclassified purpose. If the lessee or permittee should request such reclassification and/or reappraisal before the expiration of his lease or permit, he shall pay the actual expenses incurred in making the same.

Nothing herein shall be construed as preventing the Commissioner from making such reclassification or reappraisal at any time.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-530 renumbered from Section R12-5-129
(Supp. 93-3).

**R12-5-531. Suspension of Application Pending Reclassification**
Where an application is filed for a lease or permit for use or purpose other than that for which the land is already under an existing lease, together with an application for reclassification of said land as herein provided, such application shall be suspended until such classification is made by the Commissioner.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-531 renumbered from Section R12-5-130
(Supp. 93-3).

**R12-5-532. Cancellation of Lease upon Reclassification**
Upon reclassification of state land, whether upon application for reclassification or initiated by the Commissioner, notice of such decision shall be served upon all interested parties of record in the Department. If no appeal from such reclassification is taken as provided for by law, or if the decision of the Commissioner is upheld if so appealed, any lease upon said land included in the reclassification shall be automatically cancelled and the said land offered for lease in the same manner as if not having been previously leased; provided, however, the lessee or the applicant for a renewal of a lease at the time of the notice of such reclassification shall have a preferred right to lease such reclassified land at the reappraised rental thereof for such term not longer than ten years as the Commissioner deems proper; provided upon such cancellation, if such land is reclassified be leased to another than the existing lessee or applicant for a renewal of lease, any unused pro rata of any advance rental payment made by the existing lessee shall be refunded to such lessee and the lessee shall be protected in improvements, if any, on the land owned by the lessee in the manner prescribed by law.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-532 renumbered from Section R12-5-131
(Supp. 93-3).

**R12-5-533. Trespass on State Land**

**A.** Whoever knowingly and wilfully commits a trespass upon state lands, either by cutting down or destroying any timber or wood standing or growing thereon, or by carrying away any timber or wood therefrom, or by mowing, cutting, or removing any hay or grass thereof or therefrom or the grazing of livestock thereon, unless he shall have pending an application for the leasing of such lands, or by extracting or removing any oils, gases, coal, minerals, earth, rocks, fertilizer or fossils of any kind or description thereon or therefrom, or who, without right, injures or removes any building, fence or improvements thereon, or unlawfully occupies, plows or cultivates any of said lands, or negligently or wilfully exposes growing trees, shrubs, or undergrowth standing thereon to danger or destruction by fire, shall be guilty of a misdemeanor.

**B.** Whoever commits any trespass upon state lands, as above stated, shall also be liable in a civil action, brought in the name of the state in the county in which the trespass was committed, for three times the amount of the damage caused by such trespass, if the trespass was wilful, but for single damages only, if casual or involuntary. In the case of unfenced state land included within a fenced range, it shall be prima facie evidence of wilful trespass to permit the grazing of livestock thereon, unless the defendant shall have pending an application for the leasing of such lands. The damage referred to will be the rate per acre as found for the year for the appraised carrying capacities of the land. The Commissioner may also, without legal process, seize and take any product or property whatsoever unlawfully severed from such land, whether the same has been removed from such land or not, and may dispose of the product or property so seized in the manner prescribed by law for disposing of the products of state lands. The county officers of the several counties shall report to the Commissioner any trespass upon state lands which may come to their knowledge.

**C.** All lessees and permittees and holders of Certificates of Purchase are requested to inform the Commissioner in writing of any trespass committed on state lands, giving full information concerning such acts of trespass and by whom the same has been committed.

**D.** It shall be unlawful to utilize any type of motorized vehicle for travel on state trust lands except:

1. By the general public using public roads and highways that cross state trust lands;
2. By lessees and permittees of the Department acting within the limits of their leases and permits, employees of public agencies acting within the scope of their duties,

and any persons using military, fire, search and rescue, or law enforcement vehicles for emergency purposes; and

3. By holders of valid Arizona hunting, fishing, or trapping licenses within the scope of such license:
   a. On existing roads; or
   b. For cross-country travel without damaging croplands, improvements, or cultural or historic sites to pick up legally killed big game animals.

**E.** For the purpose of this Section, the following definitions apply:

1. "Cross-country travel" means travel over the countryside other than on existing roads.
2. "Existing road" means any maintained or unmaintained way, road, highway, trail, or path that has been utilized for motorized vehicular travel and clearly shows or has a history of established vehicle use. A one-time use or a single set of vehicle tracks created by an off-highway vehicle does not constitute a road under this definition.
3. "Motorized vehicle" means any vehicle deriving motive power from any source other than muscle or wind.
4. "Public roads and highways" means the entire width between the boundary lines of every public road or highway maintained by the Federal Government, the state, the Department, or a city, town, or county if any part of the road or highway is generally open to the use of the public for purposes of vehicular travel.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-533 renumbered from Section R12-5-132 (Supp. 93-3). Amended effective May 20, 1994 (Supp. 94-2).

**R12-5-534. Rules of procedure in conflicts**

Whenever it shall appear that two or more persons have applied for a lease or permit on the same lands, the Commissioner may notify all parties in interest of record of the conflict of such existing applications and may in such notice require of each of the applicants to furnish a statement of facts upon which the applicant bases his preferential right to such lease or permit. In such event, said notice shall require each applicant to file with the Commissioner and serve a copy upon the other applicants within 30 days from the date of such notice, unless such time is extended by the Commissioner or by stipulation of the parties, his statement of equities or claim of preferential right to lease or permit, clearly setting forth all of the grounds upon which he bases his claim to preference. Service of a copy of the statement of claim or preferential right on all parties in interest shall be made as in these rules provided, and evidence of such service shall be made within ten days from the date thereof.

In each instance the statement of claim must be verified under oath before some officer authorized under the laws of the state of Arizona to administer such oaths, or, in lieu thereof, the applicant may affix his signature to the statement of claim accompanied by a certification under penalty of perjury that the information contained in the statements is to the best of applicant's knowledge and belief true, correct and complete.

Each applicant within ten days from the date of the receipt of the statement of claim of the conflicting applicant may file with the Commissioner and serve upon opposite parties a responsive answer or pleading to the conflicting applicant's statement or claim of preferential right. Evidence of such service shall be filed as provided above.

In case an oral hearing is demanded by any of the conflicting applicants, such demand must be made in writing and accompany the preferential statement of equities or claim of preferential right, and a copy of said demand must be served upon the opposing applicant in the same manner and at the same time as the claim for preferential right or statement of equities are served.

Upon receipt of said statement of equities and demand for a hearing, the Commissioner shall set the matter down for hearing at his office, or such other place as he may designate, at the earliest practicable date, giving notice of said time and place for hearing to all parties in interest of record.

If no oral argument has been requested or ordered by the Commissioner, the Commissioner will determine whether anyone of the applicants has the right to the lease or permit upon such lands based upon the equities or preferential rights to lease or permit submitted by the various parties to the proceedings and upon the record before the Commissioner.

If the Commissioner should find from the evidence submitted to him that none of the applicants has a preference right to lease or permit, he will notify them of such fact and may deny all applications of record or offer said lease or permit to the highest bidder among the applicants on the basis of sealed bids submitted to the Commissioner in accordance with these rules and regulations.

Failure of any applicant to submit his statement of equities or claim of preferential right as above prescribed or to appear at the hearing set therefor will not preclude the Commissioner from examining the evidence and records or from hearing testimony submitted by the other conflicting applicants and making his decision thereon.

Nothing herein shall be construed to limit or diminish the jurisdiction of the Commissioner.

This rule shall not apply to oil and gas lease conflicts.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-534 renumbered from Section R12-5-133 (Supp. 93-3).

**R12-5-535. Form of Lease**

All leases and permits shall be on such form or forms as may from time to time be prescribed and furnished by the Commissioner.

**Historical Note**
Original rule, Art. I, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-535 renumbered from Section R12-5-134 (Supp. 93-3).

## ARTICLE 6. IMPROVEMENTS (RESERVED)

## ARTICLE 7. SPECIAL LEASING PROVISIONS

**R12-5-701. Lease of Trust Lands to the Arizona State Parks Board, Counties and Cities or Towns for Recreation Purposes**

**A.** The plan required pursuant to A.R.S. § 37-281.04 shall consist of the following:

1. Site location study: A preliminary location analysis for site selection including general inventory information and comparative analyses of alternative sites.
2. Conceptual master plan: A master plan for the proposed leased lands depicting circulation patterns and the types and locations of all proposed facilities. The master plan must contain a plan narrative that addresses the phasing of development, operation and maintenance plans for the duration of the lease and the funding sources for the proposed development. The plan and its components must be professionally prepared.

**B.** Application procedure:

1. The site location study portion of the plan shall accompany the application along with the $20.00 filing fee.
2. The State Land Commissioner will determine if recreational use is the highest and best use of the site based

upon the data provided by the applicant and other information available to the State Land Department.

3. If the site location study portion of the plan is approved, the conceptual master plan must be submitted to the Department within 30 days of the date of approval.
4. Issuance of the lease and the nature of the lease terms are dependent upon the Commissioner's approval of the conceptual master plan and his determination that such a lease is in the best interests of the trust.

**C.** Land use:

1. Development and use of the leased lands must be consistent with the conceptual master plan and the phased development schedule. Any substantial deviation requires the prior written approval of the Commissioner.
2. Any use of land other than for recreational purposes will subject the lease to cancellation by the Commissioner.
3. The Commissioner has the discretion to lease the land for other uses compatible with and in addition to the specified recreational uses.

**Historical Note**

Adopted effective May 28, 1981 (Supp. 81-3). Emergency amendment filed September 26, 1990, adopted effective September 27, 1990, pursuant to A.R.S. 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Section R12-5-701 renumbered from Section R12-5-150 (Supp. 93-3).

**R12-5-702. Agricultural Leases**

**A.** Land subject to agricultural lease; term of lease

1. All state lands classified as agricultural land are subject to agricultural leasing for such term as may be established by the Commissioner but in no event for a term of more than ten years.
   a. The term of an agricultural lease of undeveloped agricultural land shall not exceed two years.

**B.** Application for lease of lands not classified as agricultural. An application for an agricultural lease of lands not classified as agricultural shall be accompanied by an application for reclassification as provided by the general rules and regulations governing leasing of state lands.

**C.** Application for agricultural lease

1. Application for an agricultural lease shall be made upon the appropriate form as provided by the Department and in accordance with the general rules and regulations governing the leasing of state lands.
   a. Each application shall be limited to the lands in one section or part thereof.

**D.** Rental rates; appraisal

1. No agricultural lease shall provide for a rental less than the appraised rental value of the leased land, and in no event a rental less than $1.00 per acre per annum.
2. Minimum rental for each agricultural lease shall be $10.00 per annum; provided, however, that the minimum rental of $10.00 per annum shall apply to each section or portion thereof covered by the lease.

**E.** Number of leases issued on farm unit

1. Ordinarily, leases issued by the Department will combine into one lease, all contiguous and adjoining state agricultural lands within the lessee's farm unit.
   a. It is recognized that such consolidation may work hardship on the lessee because of the resultant common due date of rentals.
      i. A lessee thus affected and desirous of dividing his lease may make application to the Department to do so. Such application shall be in writing, setting forth the reasons therefor in such detail as to enable the Department to act with full knowledge of the circumstances.
      ii. If such application is approved by the Department, division of the lease will be made in as reasonable a manner as possible, compatible with the best interests of the state.

**F.** Agricultural lease form; provisions. Agricultural leases shall be made on the appropriate form provided by the Department, and shall contain such provisions and supplemental conditions as may be prescribed by the Commissioner in accordance with the provisions of the law and Department rules and regulations.

**G.** Sequence of development and improvement of lands under agricultural development lease

1. The first allowable acts of development on the leased premises under an agricultural development lease shall include only those necessary and incident to the acquisition of a water supply adequate for the development of the leased acreage.
2. The placing of any improvement not necessary to the accomplishment of subsection (A) above shall not be approved until after the acquisition of such water supply has been accomplished or assured and in all cases only after proper application made and approval had in accordance with the provisions of the Department's rules and regulations in regard to permits to place improvements.
3. When rules and regulations promulgated by state or federal regulatory agencies would affect state lands or crops grown thereon, and when, in his opinion, the best interests of the state would be so served, the State Land Commissioner may require the lessee to conform with these regulatory practices to prevent the deterioration of the soil or crops grown thereon. If the lessee fails to comply with the requirements of the Commissioner, the Commissioner may have the required remedial work accomplished and bill the lessee the amount due the Department. Failure by the lessee to pay for such remedial work will, after the proper notice, subject the lease to forfeiture for nonpayment and noncompliance.

**H.** Application for renewal; right of renewal; developmental lease

1. Application for renewal of an agricultural lease shall be made on the appropriate form provided by the Department and in accordance with the general rules and regulations governing leasing of state lands.
   a. A separate application form shall be submitted for each section of land or portion thereof within the lease.
   b. The filing fee for each application shall be the same as for an initial application.
2. A preferred right of renewal of an agricultural development lease shall not extend to a lessee who has not acquired a water supply deemed by the Commissioner to be adequate.
3. Proper diligence on the part of the lessee toward complete agricultural subjugation and development of the land under lease shall be the measure for the Commissioner's determination as to whether renewal of an agricultural development lease is in the best interests of the State.

**I.** Application to assign lease

1. Application to assign and application for assumption of lease shall be made on the appropriate form provided by the Department and in accordance with the general rules and regulations governing leasing of state lands.
   a. Upon approval of the application, the assignment will be noted on the lease and made of record in the Department.

**Historical Note**
Original rule, Art. III, Subchapter B, Ch. II (Supp. 76-4). Amended by emergency action effective June 20, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-2). Emergency expired. Section R12-5-702 renumbered from Section R12-5-151 (Supp. 93-3).

**R12-5-703. Commercial Leases**

**A.** Scope of commercial leasing rules. An applicant for a commercial lease shall be subject to the general leasing rules enumerated, supra. Such applicant shall also be subject to the commercial leasing rules set out, infra. In a commercial leasing situation where the general leasing rules and the commercial leasing rules conflict, the latter rules shall be controlling.

**B.** Lands subject to commercial lease. All state lands classified as suitable for commercial purposes are subject to a commercial lease. Unless it is deemed to be for the best interests of the state, it is not the policy of the State Land Department to allow and issue commercial leases which will seriously interfere with, damage, or break up operations of an established ranch or farm unit. There is no limit to the amount of commercial land that may be leased to any one individual, corporation, partnership or association.

**C.** Term of commercial lease. State lands suitable for commercial purposes may be leased for a period of not more than ten years without advertising, or subject to such lesser term as may be established by the Commissioner if he deems such lesser term to be in the best interests of the state.

**D.** Applications to lease state lands not classified as commercial. Applications to lease lands not classified as commercial shall be accompanied by a petition for reclassification as provided by the general leasing rules.

**E.** Application for commercial lease; application for commercial lease renewal. All applications for commercial leases and all applications for renewal of commercial leases shall be made on such form or forms as may from time to time be prescribed by the Commissioner and provided by the Commissioner. A commercial lease before the time of execution or renewal will be subject to the provisions and supplemental conditions and restrictions as may be added thereto and the provisions of law and these rules.

**F.** Additional conditions for commercial leases.

1. Unless otherwise directed by the Commissioner in writing, the lessee shall:
   a. Notify the Commissioner in writing as to the number of any license issued by the state Tax Commission of Arizona to the lessee, any sublessee, any concessionaire or any assignee; such notice shall also include the exact name in which license is issued.
   b. Keep and maintain an accounting system satisfactory to the Commissioner.
   c. Allow access to accounting records during business hours where the same are kept for the purpose of inspecting and auditing the same.
   d. File with the Commissioner, if requested by the Commissioner, a statement of the total gross sales made for the period specified. Unless otherwise directed by the Commissioner, this report may be made by filing with the Commissioner the requested information on the form used by the state Tax Commission.
   e. Acquire consent in writing from the Commissioner for any improvements made on the site.
   f. Acquire consent in writing for moving buildings from other premises onto the leased premises. All buildings and structures shall be of acceptable construction.
   g. Keep any gas, electric, power, telephone, water, sewer, cable television and other utility or service lines under ground unless prohibited by law.
   h. File with the Commissioner, prior to the approval of any application to place improvements, plans and specifications showing the nature, location, cost, quality of proposed material, size, area, height, color, shape and design of the proposed improvements. The Commissioner may also require a perimeter survey of the leased premises upon which shall be shown the location of the completed improvements. The lessee shall also submit grading plans.
2. The above conditions shall apply to any assignee, sublessee or concessionaire of the original lessee.

**G.** Maps required as part of application for commercial lease. The applicant shall furnish such information map of the lands to be leased as the Commissioner may require and deem necessary to evaluate the application and assist in making an appraisal; and, in addition, the Commissioner may require an aerial photograph or photographs of such lands as he may specify in a request therefor.

**H.** Minimum rental rates for commercial leases. No commercial lease shall provide for an annual rental of less than the appraised rental value of the land and in no event shall the rent be less than 5¢ per acre per annum or less than $10.00 per annum per lease.

**I.** Division of leases. The State Land Commissioner may at any time divide a commercial lease into two or more separate leases when such division would, in the opinion of the Commissioner, facilitate administration and management of the subject lands or would result in separating one commercial use from another. The rent for the lease year in which such division is made shall be allocated to the separate leases.

**J.** Sublease of commercial lease by lessee. No commercial lessee shall sublet his lease without the written permission of the Commissioner. Approval of a sublease may be granted at the discretion of the Commissioner and shall be obtained by the lessee submitting for approval of the Commissioner the sublease executed in triplicate. Upon the approval by the Commissioner, two copies of the sublease, with the Commissioner's approval and any limitation to such approval endorsed by the Commissioner thereon will be returned to the lessee, one copy thereof being retained in the files of the Department.

**K.** Application to assign lease. Application to assign and application for assumption of lease and transfer shall be made upon such forms as may from time to time be prescribed by the Commissioner; upon the approval of the application, the action taken by the Commissioner will be noted upon the lease and made of record in the Department.

**L.** Use of state lands; failure to use. No lessee or permittee shall use lands under permit or lease except for the uses and purposes specifically set forth in the lease or other such uses or purposes as may be subsequently authorized by the Commissioner in writing.

**M.** Rights of commercial lessee or permittee. All leases or permits granted by the Commissioner are only a license or permit to use the land described in the lease or permit for commercial purposes in a manner compatible with the terms of said lease or permit. The state of Arizona reserves the right to grant other leases or permits for the use of said lands or the removal of natural products therefrom.

No lessee or permittee has the authority or right to issue any person any right to the use of said land or the removal of any products therefrom, but such right to use vests solely in the

Commissioner and must be granted by the Commissioner in writing.

**Historical Note**

Original rule, Art. V, Subchapter B, Ch. II (Supp. 76-4). Amended by adding subsection (N) as an emergency effective January 9, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-1). Emergency expired. Readopted without change as an emergency effective June 16, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-2). Emergency expired. Section R12-5-703 renumbered from Section R12-5-152 (Supp. 93-3).

**R12-5-704. Educational Leases**

**A.** Land subject to public educational lease. All state lands available for lease shall be subject to the granting of a lease for public educational purposes.

**B.** Limitation on amount of land under each public education lease. Each lease granted for public educational purposes shall be granted for an area of 60 acres or less. In no event will a lease be granted for an area of more than 60 acres.

**C.** Application for a lease for public educational purposes. An application for a lease for public educational purposes shall be made to the State Land Department on forms available at the Department and from time to time prescribed by the Commissioner.

**D.** Qualifications of applicant. An applicant to lease state land for public school purposes must be qualified under the laws of the state of Arizona as a Board of Regents, Board of Trustees or a Board of Education.

**E.** Special requirement for signing application. Each application for lease for educational purposes shall be signed and sworn to by an authorized agent of the Board of Regents, Board of Trustees or Board of Education of the applying school district.

**F.** Term of lease. The term of a public educational lease shall be for a term of not to exceed 25 years.

**G.** Rental fees. After receiving the application, the Commissioner shall set an annual rental fee at an amount considered to be in the best interests of the state. Such rental shall not vary throughout the term of the lease. At the end of the term, the annual rental fee will be subject to review and change by the Commissioner.

**H.** Lease form. The lease shall be on a form furnished by the Department as prescribed from time to time by the Commissioner.

**I.** Requirement of signature on lease. Each lease for educational purposes shall be signed and sworn to by an authorized agent of the Board of Regents, Board of Trustees, or Board of Education of the applying school district.

**J.** Limitation of use provision. The lands leased shall be used exclusively for public education purposes. Any other use by the lessee will constitute a material breach of the lease and will subject the lessee to cancellation of the lease by the Commissioner.

**K.** Application for renewal. An application for renewal of a public education lease shall be made on the appropriate form prescribed from time to time by the Commissioner and provided by the Department.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-704 renumbered from Section R12-5-153 (Supp. 93-3).

**R12-5-705. Grazing Leases**

**A.** Definitions. Unless the context otherwise requires, the words hereinafter defined shall have the following meaning when found in these rules, to wit:

1. "Grazing lands" means lands which can be used only for the ranging of animals.
2. "Carrying capacity" or "average annual carrying capacity" means the average number of animal units which can be supported by a section of grazing land with due consideration for sustained production of the forage consistent with conservative range management.
3. "A section of land" for appraisal of carrying capacity purposes means an area of land consisting of 640 acres.
4. "Animal unit" means one weaned beef animal over six months of age, or one horse, five goats, or five sheep, or the equivalent thereof.
5. "Average market price of cattle" means the average price by the hundredweight received during the calendar year under consideration by producers of cattle, exclusive of calves, in the states of Arizona, New Mexico, California, Utah, Nevada, Colorado, Wyoming, Montana, Idaho, Washington and Oregon, as determined by the Bureau of Agricultural Economics, United States Department of Agriculture, and, if that service is not available, from such sources as the Commissioner determines best to establish said price.

**B.** Qualifications to leasing grazing lands. Any person of the age of 21 years or over, a citizen of the United States, or who has declared an intention to become a citizen of the United States, or any firm, association or corporation which has complied with the laws of the state, shall be qualified to lease state land for grazing purposes.

**C.** Applications for grazing lease and renewals. Application for a grazing lease shall be made upon Land Division form and an application for renewal thereof shall be made upon Land Division form in accordance with the general rules and regulations relating to the leasing of state lands. Only one section or subdivision thereof may be applied for on one application for an initial lease. Application for renewal of an existing lease may include an entire ranch unit or any part thereof; provided, however, the filing fees must be paid in the same manner as in the original application.

An applicant for an initial lease shall fill out the form in complete detail. An applicant for a renewal of an existing lease, if he has an up-to-date and current statement of his holdings within the ranch unit used in connection with the lands sought to be leased, will not be required to fill out in detail answers to questions concerning his holdings appearing on the applicant form.

**D.** Land subject to grazing lease and term of lease. All state lands classified as grazing lands, not under lease, are subject to grazing lease for a period of not more than ten years without advertising, or for such lesser term as may be established by the Commissioner if he deems such lesser term to be to the best interests of the state. It is the policy of the Department not to offer open land for lease within an established ranch unit without first offering said lands to the owner or the person having control of the lands in such ranch unit. There is no limit to the amount of grazing land that may be leased to any one individual, corporation, partnership or association.

**E.** Application to lease lands not classified as grazing. Applications to lease lands not classified as grazing shall be accompanied by a petition for reclassification as provided by the general rules and regulations relating to the leasing of state lands.

**F.** Rental rates of grazing land; appraisal. No grazing lease shall provide for a rental of less than the appraised rate of the land, and in no event less than 2¢ per acre per annum, or a minimum of $2.50 per annum per lease, said minimum of $2.50 per annum per lease applying to one section or portion thereof.

The Commissioner shall appraise all grazing land on the basis of its annual carrying capacity. The annual rental rate for grazing land shall be the amount found by multiplying the carrying capacity of the lands by the annual rental rate per animal unit. The annual rental rate per animal unit shall be 22% of the average market price of beef for the preceding year. The annual carrying capacity is determined by a field appraisal by the Department, and the basis for said appraisal is the average carrying capacity of the land over a ten-year period. Notice of the appraised rental of the land will be contained in the annual billing statement which will be sent to the lessee by registered mail unless he has previously signified his acceptance of said carrying capacity together with the Commissioner's final decision regarding the appraised rental. Prevailing annual rental schedules will be published annually and furnished each lessee at the time of mailing the notice of appraised rental.

An appeal from any final decision of the Commissioner relating to the appraisal of lands may be taken to the Board of Appeals as provided in the general rules and regulations relating to state lands.

**G.** Number of leases issued on ranch unit. Leases issued by the Department will include all state grazing lands within the ranch unit in one lease unless a hardship results therefrom to the lessee, in which case the lessee may at his election divide the state lands in his ranch unit in not more than four separate leases in such a manner that lease rentals will not become due and payable at the same time but will be payable on an approximate quarterly or semi-annual basis. To divide a ranch unit it is necessary for the lessee to apply in writing or in person to the Department, supplying sufficient information in order that a division of the state lands in his ranch unit can be separated topographically or by an exact line. In such cases, instead of one lease covering all the state lands in a ranch unit being issued, additional leases may be issued with different dates of payment of rentals.

**H.** Form of grazing lease and provisions thereof. The form of grazing lease offered by the Department to an applicant will be on Land Division form No. A-11 and will be subject to the provisions and supplemental conditions therein contained and such other conditions as may be added thereto and the provisions of law and these rules and regulations.

**I.** Rights of grazing lessee. All grazing leases granted by the Commissioner are only a license to graze livestock and to use the land described in the lease in a manner compatible with the terms of the lease. The state of Arizona reserves the right to grant other forms of leases or permits for the use of said lands or the removal of natural products therefrom. No grazing lessee has the authority or right to issue to any person any rights to the use of said lands or the removal of any products therefrom, but such right of use vests solely in the Commissioner and must be granted by the Commissioner in writing.

**J.** Sublease or pasturage agreement. No grazing lessee shall sublet his lease, sell or lease pasturage of lands embraced in his lease without the written permission of the Commissioner. Approval of a sublease or pasturage agreement may be granted at the discretion of the Commissioner and shall be obtained by the lessee submitting for approval of the Commissioner the sublease or pasturage agreement executed in triplicate. Upon the approval by the Commissioner, two copies of the sublease or pasturage agreement, with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon, will be returned to the lessee, one copy thereof being retained in the files of the Department.

**K.** Carrying capacity and application to exceed the same. No grazing lessee, sublessee or users under a pasturage agreement shall graze, without permission of the Commissioner, in excess of one hundred ten (110%) percent of the carrying capacity as previously determined by the Commissioner upon state lands under lease within the exterior boundaries of any one ranch unit or units in the same general locality jointly operated. Approval to exceed the carrying capacity may be obtained by submitting a written request therefor. The request should contain the number of head of animals the lessee, sublessee or user desires to place upon the leased lands in excess of one hundred ten (110%) percent of the carrying capacity, together with a statement as to how long the additional animals will remain upon the leased lands. If the Commissioner approves said request, the lessee, sublessee or user will be notified of such approval of increase in the carrying capacity and the period granted therefor. In the event of the approval of any such excess the Commissioner shall assess and collect the rental for such excess as provided by law and these rules and regulations.

**L.** Cultivation and growing of crops on grazing land. State land under grazing lease is limited to the ranging of animals only and may be cultivated and crops grown thereon only with the approval of the Commissioner. Upon approval of the Commissioner the land may be cultivated and crops grown thereon provided such crops are forage crops in nature that are pastured by animals or, if severed from the land, are fed to animals upon the ranch unit. Under no circumstances may the lessee grow crops commercially under the provisions of a grazing lease. In the event any crops are grown with the approval of the Commissioner which will be pastured or removed from the land for use at other times of the year upon the ranch unit, the carrying capacity will be adjusted in accordance with the forage crops grown.

**M.** Cutting of timber, standing trees or posts. The lessee shall not cut or waste, nor allow to be cut or wasted, any timber or standing trees growing on the leased land without the written consent of the Commissioner, except for fuel for domestic uses or for the necessary improvements upon the land; provided, however, that nothing herein contained shall be construed to permit the cutting of saw timber for any purpose except with the written consent of the Commissioner.

Posts cut primarily from cedar, mesquite and juniper trees may be used for the erection and use of improvements by the lessee upon state lands without cost, provided the written consent of the Commissioner is first obtained. Such posts may not be used on other than state lands without payment therefor. The lessee is required to file an affidavit with the Department indicating the number of posts cut, the number used for improvement of state land and the number used on other than state lands or stockpiled for future use. At the time approval to cut posts is granted by the Commissioner, the price will be determined by him, which will be comparable to the price of posts from the United States Forest Service, and the price will be payable at the time the affidavit indicating the number of posts cut is filed with the Department. The Commissioner, or his representative, upon the granting of approval to cut posts, will from time to time visit the lessee to determine the number of posts cut. The Commissioner recognizes that the removal of cedars, mesquite and juniper trees from grazing lands is a conservation measure that will maintain or increase the range carrying capacity and that the removal of these trees in most cases would benefit state lands.

In the event the lessee does not desire to purchase the trees as above provided, the Commissioner, if he deems it for the best interest of the state, may sell the same under such terms and conditions that he may require.

A purchaser other than a lessee shall not injure the lessee's surface rights and improvements or interfere with the lessee's use

of the land under lease to him and may be required to file a surety bond with the Commissioner in such amount and under such conditions as to indemnify the lessee for any damage which may result due to his removal of the trees.

**N.** Application to assign lease. Applications to assign and application for assumption of lease and transfer shall be made upon Land Division form No. A-13-1 and in accordance with the general rules and regulations relating to the leasing of state lands. Upon approval of the application, the assignment of the lease will be made by the Commissioner upon the lease where indicated and made of record in the Department.

**O.** Use of state lands; failure to use. No lessee or permittee shall use lands under lease or permit to him except for grazing purposes unless authorized by the Commissioner in writing.

Applications for a special use of lands under permit or lease to a lessee or permittee for purposes other than grazing shall be made in writing in triplicate, and shall state in detail the reasons for such use. The application shall be signed and verified as provided for in applications to lease. Upon approval of the application by the Commissioner, two copies of the application with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon will be returned by the Commissioner to the lessee, one copy thereof being retained in the files of the Department.

Failure of any lessee or permittee to use the land for the purposes for which he holds a lease or permit, without having been authorized so to do by the Commissioner in writing, may, in the discretion of the Commissioner, subject said lease or permit to forfeiture or to cancellation as provided by law and these rules and regulations.

**P.** Posting to prohibit hunting and fishing on state land. State land under lease or permit may not be posted to prohibit hunting and fishing without the consent of the Arizona Game and Fish Commission.

**Historical Note**
Original rule, Art. II, Subchapter B, Ch. II (Supp. 76-4).
Amended effective September 26, 1978 (Supp. 78-5).
Section R12-5-705 renumbered from Section R12-5-154
(Supp. 93-3).

**R12-5-706. Homesite Leases**

**A.** Definitions. "Homesite lands" shall mean lands which are suitable for home purposes to the extent required for such purposes.

**B.** Land subject to homesite lease and term thereof. All state lands classified as suitable for homesite purposes are subject to homesite lease for a period of not more than ten years without advertising or subject to such lesser term as may be established by the Commissioner if he deems such lesser term to be to the best interests of the State. An application for an initial lease on homesite lands shall not be approved for a period of longer than two years.

Unless it is deemed to be for the best interest of the state, it is not the policy of the Department to allow and issue homesite leases which will seriously interfere with, damage or break up operations of an established ranch or farm unit.

There is no limit to the amount of homesite land that may be leased to any one individual, corporation, partnership or association.

**C.** Application to lease lands not classified as homesites. Applications to lease lands not classified as homesites shall be accompanied by a petition for reclassification as provided by the general rules and regulations relating to leasing of state lands.

**D.** Application for homesite lease and renewal. Application for a homesite lease shall be made upon Land Division form, and application for renewal of an existing homesite lease shall be made upon Land Division form, and in accordance with the rules and regulations relating to leasing of state lands.

If an applicant has not used the land for the purpose for which the initial lease was granted him, he must state in detail reason therefor unless he has obtained from the Commissioner authorization in writing for such non-use as required by law and these rules and regulations.

**E.** Rental rates of homesite lease. No homesite lease shall provide for an annual rental of less than the appraised rental value of the land, and in no event for less than 5¢ per acre per annum, or a minimum of $10.00 per annum per lease.

**F.** Form of homesite lease and provisions thereof. The form of homesite lease offered by the Department to an applicant will be on Land Division form. The lease will be subject to the provisions and supplemental conditions therein contained and such other conditions as may be added thereto and the provisions of law and these rules and regulations.

**G.** Sublease. No homesite lease shall be sublet by the lessee without the written permission of the Commissioner. Approval of a sublease may be granted at the discretion of the Commissioner and shall be obtained by the lessee submitting for approval of the Commissioner the sublease executed in triplicate. Upon the approval by the Commissioner, two copies of the sublease, with the Commissioner's approval and any limitation to such approval endorsed by the Commissioner thereon, will be returned to the lessee, one copy thereof being retained in the files of the Department.

**H.** Application to assign lease. Application to assign and application for assumption of lease and transfer for all or a portion of the land under lease shall be made upon Land Division form and in accordance with the general rules and regulations relating to state lands. Upon approval of the application, the assignment of the lease will be made by the Commissioner upon the lease where indicated and made of record in the Department.

**I.** Use of state lands; failure to use. No lessee or permittee shall use lands under permit or lease to him except for homesite purposes unless authorized by the Commissioner in writing.

Applications for a special use of lands under permit or lease to a lessee or permittee for purposes other than homesite shall be made in writing in triplicate, and shall state in detail the reasons for such use. The application shall be signed and verified as provided for in applications to lease. Upon approval of the application by the Commissioner, two copies of the application with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon will be returned by the Commissioner to the lessee, one copy thereof being retained in the files of the Department.

Failure of any lessee or permittee to use the land for the purposes for which he holds a lease or permit, without having been authorized so to do by the Commissioner in writing, may, in the discretion of the Commissioner, subject said lease or permit to forfeiture or to cancellation as provided by law and these rules and regulations.

**J.** Rights of homesite lessee or permittee. All leases or permits granted by the Commissioner are only a license or permit to use the land described in the lease or permit for homesite purposes, in a manner compatible with the terms of said lease or permit. The state of Arizona reserves the right to grant other leases or permits for the use of said lands or the removal of natural products therefrom.

No lessee or permittee has the authority or right to issue to any person any right to the use of said land or the removal of any products therefrom but such right of use vests solely in the Commissioner and must be granted by the Commissioner in writing.

**Historical Note**
Original rule, Art. IV, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-706 renumbered from Section R12-5-155 (Supp. 93-3).

## ARTICLE 8. RIGHTS-OF-WAY

**R12-5-801. Rights-of-way**

**A.** Definitions
1. "Commissioner" means State Land Commissioner.
2. "Department" means State Land Department.
3. "Right-of-way" for the purpose of these rules means a right of use and passage over or through state land for such purpose as the Commissioner may deem necessary.
4. "Lease" means any lease on state land in existence at the time applicant applies for right-of-way, or granted thereafter for either surface or subsurface use.
5. "Patent" means a document used by the State Land Department to convey title to land.
6. "Site" means a reservoir for storage of water; a location for a dam, a power plant or an irrigation plant, and for other purposes for public uses. (Not to include workings for the removal of sand, gravel and other road materials.)

**B.** Miscellaneous rules
1. Scope. These rules and regulations are general rules implementing Article 10, Title 37-461, Arizona Revised Statutes, providing for grants of rights-of-way and sites for public purposes, and shall prevail over and supersede any existing policy or procedure of the Department to the extent that they are in conflict therewith.
2. State land subject to application. Any state-owned land shall be subject to application, provided that the proposed use does not unalterably conflict with other existing rights.

**C.** Application for right-of-way
1. Qualifications of applicant
   a. Any citizen of the United States, partnership or association of citizens, or a corporation organized under the laws of the United States or any state or territory thereof, and who are authorized to transact business in the state, and any governmental agency of the state or political subdivision and municipal corporations thereof, may apply to the Department for a right-of-way on, over or through state land.
   b. Application for right-of-way shall be made upon forms provided by the State Land Department.
2. Area covered by application and right-of-way. Separate application shall be made for each county crossed. Data for each section will be shown separately.
3. Information to be furnished by the applicant
   a. The application for a right-of-way shall be in such form as the Commissioner may prescribe, shall be filed with the Department by the applicant or by an authorized agent for the applicant, and shall be required to furnish the Department the following information as the Commissioner may prescribe.
      i. Name and address of applicant.
      ii. Statement whether applicant is an individual, partnership or corporation, or governmental agency of the state or political subdivision and municipal corporation thereof.
      iii. Statement of citizenship, when applicable.
      iv. If a corporation:
         (1) Name.
         (2) State of incorporation.
         (3) Arizona business address.
         (4) Affirmation of authority to do business in Arizona.
      v. Age and marital status, when applicable.
      vi. Description, according to the public land survey of the land for which application is being made.
      vii. Width of the right-of-way.
      viii. The nature of the right-of-way (the right-of-way is temporary or permanent; the right-of-way requires exclusive use or to what extent; a right- of-way through a given area).
      ix. A survey of the land for which application is being made showing distance and direction from a known cadastral survey point in each section.
      x. Location of improvements or crops on land under application over which proposed routes of right-of-way will pass (information required in (ix) and (x) shall be conveyed by means of accurate plat or drawing accompanying the application form).
      xi. The applicant shall furnish evidence from surface lessee and all other right holders in the land applied for giving consent to the new right-of-way or objection thereto.
   b. This rule shall not be taken or construed to limit or restrict the authority of the Commissioner to require the applicant to furnish such additional information as the Commissioner may deem necessary.
4. Rights of surface and subsurface lessees or permittees
   a. The Commissioner has the right to grant rights-of-way without the consent of the surface or subsurface lessee.
   b. When the applicant for a right-of-way and any existing right holder do not agree on the appraised value of damages to the right holder, the applicant for right-of-way may apply to the Commissioner to appraise the value of any improvements that may be injured or damaged. The cost of any such appraisal shall be paid by the applicant for right-of-way.
   c. In cases where to utilize the right-of-way applied for, it is necessary to cut a fence belonging to the surface lessee or otherwise enter through a fence, the installation of a standard cattle guard or other facilities in accordance with such specifications as the Commissioner may prescribe, may be required by the Commissioner as a condition to the granting of the right-of-way.
5. Filing application for right-of-way; fees; rejection; withdrawal
   a. Each application filed with the Department shall be accompanied by a filing fee.
   b. Each application filed shall first be checked for its completeness and when it meets the requirements shall be made of record in the Department.
   c. Rental or other payment for each right-of-way shall be determined by the Commissioner after appraisal.
      i. Rental for rights-of-way granted without public auction sale shall be determined by the Commissioner after appraisal.
      ii. Rights-of-way for exclusive use or perpetual in nature (except rights-of-way granted to governmental agencies of the state or political subdivisions and municipal corporations thereof) shall be sold at public auction as provided under the laws for sale of state land after appraisal.

iii. Rights-of-way for governmental agencies of the state or political subdivisions and municipal corporations thereof may be granted by the Department for an indefinite period for so long as used for the purpose granted after full payment of the appraised value of the right-of- way has been made to the State Land Department.
(1) All appraisals of rights-of-way shall be established by the State Land Commissioner.
(2) The appraised value of the right-of-way shall be determined in accordance with the principles established in A.R.S. §§ 12-1122 and 37-132.

6. Right of applicant to use of land
a. The filing of an application for a right-of-way shall not confer upon the applicant any right to use the area applied for.
b. A right of entry to map and survey or for any other purpose in the area to be applied for may be obtained from the Commissioner on forms provided by the Department.

7. Termination of use; abandonment
a. When a right-of-way holder has no further use of the area, he may surrender the contract to the Commissioner.
b. The Commissioner may determine that a right-of-way is abandoned when the proper showing is made that the area under right-of-way is no longer needed or used for the purpose applied for.
c. The Commissioner shall give right-of-way holder 30 days to show cause why a right-of-way should not be cancelled. If within 30 days the right-of-way holder fails to correct the defect, the Commissioner may issue an order of abandonment.

8. Issuance of a right-of-way
a. Upon the compliance by the applicant with the requirements set forth by the Commissioner, the right-of-way contract shall be issued.
b. The failure of the applicant to execute and return the right-of-way contract with all monies required within 60 days from the date of mailing by the Department, the Commissioner may issue a cancellation order for non-completion of the contract.
c. The date of the right-of-way contract shall commence on the date the contract is mailed by the Department to the applicant.

**D.** Right-of-way

1. Term of right-of-way. The term of the right-of-way shall be determined by the Department and shall be set forth on the right-of-way contract.
2. Right-of-way rentals or other payments. The rental or any other payments required for rights-of-way shall be determined by the Commissioner after appraisal.
3. Possession and right of use of right-of-way area. The right is granted for the use of the area described in the right-of- way contract subject to any existing prior rights and subject to any rights the Department shall grant hereafter.
4. Provisions of the right-of-way
a. Every right-of-way contract shall provide for:
i. Payment to the Department of the amount established by the Commissioner after determination of the true appraised value.
ii. The installation and construction of necessary machinery, equipment and facilities with the right of removal within 90 days after expiration or termination of the right-of-way.
iii. Fencing and other protective requirements deemed necessary by the Commissioner.
iv. That the grantee shall restore the surface of the land within the right-of-way to a reasonable condition as required by the Commissioner.
v. That the grantee will indemnify, hold and save grantor harmless against all loss, damage, liability, expenses, costs and charges incident to or resulting in any way from the use, condition or occupation of the land.
vi. A statement of the purpose for which the right-of-way was granted.
vii. The right of the grantee to assign the right-of-way, provided that such an assignment shall not become effective until approved in writing by the Commissioner as being in the best interests of the state and until a copy thereof is filed with the Department.
viii. The right of termination of the right-of-way by the grantee at any time during its term by giving the Commissioner 30 days notice of termination in writing, provided that the grantee is not delinquent in any payments and has complied with all conditions on the date of termination.

5. Assignment of right-of-way; sublease prohibited
a. Grantee of each right-of-way contract, if not in default of rental or other payments, and who has kept and performed all the conditions of his lease, may, with written approval of the Commissioner, assign the right-of-way.
i. Application for assignment, the assignment and the assumption of the right-of-way will be on such forms as the Commissioner may prescribe.
ii. An assignment shall not become effective unless and until it is approved by the Commissioner.
iii. The assignee shall succeed to all the rights and shall be subject to the obligations of the assignor.
iv. A sub-grant of the right-of-way contract is prohibited.

6. Right-of-way renewal. Upon application to the Commissioner, not less than 30 days, nor more than 60 days prior to the expiration of the right-of-way contract, the grantee of a right-of-way contract, if he is not delinquent in the payment of rental or of monies due the State Land Department on the date of expiration of the contract, shall have a preferred right to renew the right-of- way contract bearing even date with the expiration of the old contract.

7. Bonds
a. The Commissioner may require the grantee to post a cash deposit or surety bond to guarantee the payment of all monies due under the contract.
b. The Commissioner may require the grantee to furnish bond, in a reasonable amount, to be fixed by the Commissioner, conditioned that the grantee will guarantee restoration of the surface of the land described in the contract to a reasonable condition, upon the termination of the right-of-way contract.
c. The Commissioner may require the lessee to file with the Department a surety bond in the form, amount, and with surety approved by the Commis-

sioner, conditioned upon prompt payment to the lessee of the surface, subsurface or otherwise of the state land covered by the right-of-way, for any loss to such owner or lessee from damage or destruction caused by the construction or use of the right-of-way, his or its agents, or employees, to grasses, forage, crops and improvements upon such land.

d. Assignment of any or all of the right-of-way contract will not relieve the assignor of his obligation as principal under the bond. Release of the assignor's obligation under bond may be effected through the posting of a replacement bond by the assignee, but then only after approval by the Commissioner and subsequent notification of the release by the Commissioner in writing to the principal and surety.

e. The Commissioner, in his discretion, may reduce or increase the principal amount of the bond.

f. Immediately after determination by the Commissioner that full discharge of the conditions of the obligations under any bond has been effected, he will, in writing, notify the principal and surety held by the bond so that it may be formally terminated.

g. Surety on the bond shall have the right to cancel the bond and be relieved of further liability after the period of notice, by giving 30 days' notice to the Department of its desire to so cancel.

i. Upon receipt of such notification, the Department will immediately notify the grantee by certified mail of the impending action by surety.

ii. Failure by the grantee to post a replacement bond before the expiration of the 30 days mentioned next above, shall constitute a default by the grantee and cause for cancellation of the right-of-way.

8. Principal payments. Each right-of-way granted to governmental agencies of the state or political subdivisions and municipal corporations thereof for exclusive use or perpetual use shall provide for payment of principal in the full amount of the appraised value as provided by the Commissioner after appraisal.

**E.** Reports

1. Report of improvements

a. Applications for and reports of improvements placed shall be presented to the Commissioner on forms provided by the Department.

b. Grantee of every right-of-way shall submit to the Department an application to place any improvement to be placed on the right-of-way and shall secure written approval from the Commissioner to place the improvement before any work is commenced toward the improvement.

c. The grantee shall report any completed improvements to the Commissioner and secure approval from the Commissioner.

**Historical Note**

Original rule, Art. VIII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-801 renumbered from Section R12-5-165 (Supp. 93-3).

**R12-5-802. Reservoir, Dam, and Other Sites**

**A.** Definitions

1. "Site lease" shall mean a lease issued upon state lands by the Department for reservoir or dam sites primarily used for purposes other than stock watering on lands leased for grazing purposes, and power or irrigation plant sites requiring more width than general rights-of-way leases for transmission lines or canals, or for such other purposes not classified as commercial.

2. "Surface lessee" means the holder of a lease on the surface of any state land for grazing, agricultural, commercial, homesite or natural products.

3. "Subsurface lessee" means the holder of a lease on the subsurface of any state land for oil and gas, mineral or natural products.

**B.** Land subject to site lease and term of lease. All state lands are subject to site lease for a term of not more than ten years without advertising, or for such lesser term as may be established by the Commissioner if he deems such lesser term to be to the best interests of the state. Site leases in excess of ten years are required by law to be advertised and sold at public auction to the highest bidder.

No lease for a site will be granted where damage or injury to improvements owned by a surface or subsurface leaseholder would result from the granting of the site by the Department without giving rise to a cause of action by the owner of said improvements, unless compensation for the value or damage or injury to said improvements has first been determined and a settlement made.

**C.** Application for site lease. An application for a site lease shall be made upon Land Division form No. A-82, and in accordance with the general rules and regulations relating to the leasing of state lands.

The application shall be accompanied by a map showing in detail the survey of the site applied for, or, if not surveyed, a map of reasonable accuracy so that the site may be located upon the land itself by either a survey or protraction. The Commissioner reserves the right to require a survey to be made by a regularly licensed registered engineer or land surveyor at any time. The map need be of no particular scale but should be of sufficiently large enough scale that improvements upon the surface of the land applied for may be shown. The map is considered a part of the application to lease as a line of definite location which will bind the applicant in the same manner as the lease application itself to the statements made therein.

An application for a site lease over or across state lands, the surface or subsurface of which is leased and in use, should be accompanied by a statement from such surface or subsurface lessee that he has no objection to the granting of the site lease, or, if such consent cannot be obtained, a statement from the applicant stating the reasons why such consent has not been obtained.

**D.** Renewal application for site lease. Application for renewal of a site lease shall be made upon Land Division form No. A-13-3 and in accordance with the general rules and regulations relating to state lands.

If the applicant has not used the land for the purpose for which the initial lease was granted to him, he must state in detail reasons therefor unless he has obtained from the Commissioner authorization in writing for such non-use as required by law and the rules and regulations of the Department.

**E.** Rights of surface and subsurface lessees. Under the law the Commissioner has the right to grant sites without the consent of the surface or subsurface lessee. However, in many instances the surface or subsurface lessee owns improvements upon the lands desired for a site lease and these improvements are protected by law. In the event the site applicant and the surface or subsurface lessee are unable to arrive at the value of any improvements which may be injured or damaged by the grant of a site lease and the consent of the surface or subsurface lessee cannot be secured, the Commissioner may, if it is to

the best interest of the state, appraise the improvements as provided by law and grant the lease upon evidence of tender to the owner of improvements of the appraised value of the same. The owner of the improvements may appeal from the appraisal of the improvements to the Appeal Board of the Department as authorized by law and these rules and regulations.

**F.** Rental. No site lease shall provide for an annual rental of less than the appraised rental value of the land and in no event for less than 5¢ per acre per annum or a minimum of $10.00 per annum per lease.

**G.** Form of site lease and provisions thereof. The form of site lease offered by the Department to an applicant will be on Land Division form No. A-83 and will be subject to the provisions and supplemental conditions therein contained, and such other conditions as may be added thereto, and the provisions of law and these rules and regulations.

**H.** Effect of a site lease. No lessee shall use lands under lease to him except for site purposes unless authorized by the Commissioner in writing.

Applications for a special use of lands under lease to a lessee for purposes other than which the lease was issued shall be made in writing in triplicate and shall state in detail the reasons for such use. The application shall be signed and verified as provided for in applications to lease. Upon approval of the application by the Commissioner, two copies of the application with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon will be returned by the Commissioner to the lessee, one copy thereof being retained in the files of the Department.

Failure of any lessee to use the land for the purposes for which he holds a lease, without having been authorized so to do by the Commissioner in writing, may, in the discretion of the Commissioner, subject said lease to forfeiture or to cancellation as provided by law and these rules and regulations.

**I.** Rights of site lessee. All leases granted by the Commissioner are only a license to use the land described in the lease for site purposes in a manner compatible with the terms of said lease. The state reserves the right to grant other leases for the use of said lands or the renewal of natural products therefrom. No site lessee has the authority or right to issue to any person any right to the use of said land or the removal of any products therefrom, but such right of use vests solely in the Commissioner and must be granted by the Commissioner in writing.

**Historical Note**

Original rule, Art. X, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-802 renumbered from Section R12-5-166 (Supp. 93-3).

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

**R12-5-803. Application of this Article to Public Trust Land**

**A.** This Article shall apply to govern the application for and issuance of leases for rights-of-way in public trust lands for nonexclusive uses for a term of not more than ten years without a public auction. Nothing in this Article shall authorize the Department to issue a right-of-way lease of public trust land except as authorized by Arizona law governing the disposition of public trust land.

**B.** The cost of providing statutory notice to those listed with the Department as interested in commenting and of providing copies of the final decision to commenters shall be borne by the applicant for a right-of-way lease or a right-of-entry permit.

**Historical Note**

Adopted under an exemption from the provisions of the Administrative Procedure Act, effective July 8, 1993 (Supp. 93-3). Section R12-5-803 renumbered from Section R12-5-167 (Supp. 93-3).

## ARTICLE 9. EXCHANGES

**R12-5-901. Scope of Rules**

These rules apply only to exchange of state land under the provisions of A.R.S. §§ 37-604 to 37-608, inclusive, and shall prevail over and supersede any existing policy or procedure to the extent that they are in conflict therewith.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-901 renumbered from Section R12-5-179 (Supp. 93-3). R12-5-901 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-901 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-902. Definitions**

Unless the context otherwise requires:

1. "Commissioner" means the State Land Commissioner.
2. "Selection board" means that board composed of the Governor, the State Land Commissioner and the Attorney General, as authorized by A.R.S. § 37-202.
3. "Private owner" means any individual person, firm, corporation, association, partnership, receiver, trustee, guardian, executor, administrator, fiduciary representative, or any group acting as a unit, but does not include the government of the state, the government of the United States, and any subdivision, agency or instrumentality, corporate or otherwise, of either of them.
4. "Department" means the State Land Department.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-902 renumbered from Section R12-5-180 (Supp. 93-3). R12-5-902 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-902 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-903. Informal Opinion**

To minimize the expense involved to both parties in the formal processing of an application to exchange lands, a person may file a written request with the Department for an informal opinion of the Commissioner as to whether or not on the basis of the information submitted in such request there would be a benefit to the state of Arizona resulting from the proposed exchange. Any such informal opinion shall in no way prevent such person from later filing an application to exchange or the Department from accepting or rejecting the same.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-903 renumbered from Section R12-5-181 (Supp. 93-3). R12-5-903 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-903 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-904. Application**
The application shall be prepared and filed on such forms as the Department may from time to time prescribe. The application shall set forth such information as is required by law and these rules, including but not limited to the following: the name, age, and residence of the applicant; a description of all lands sought to be exchanged, which description shall be technically competent, definite, susceptible of only one interpretation, and furnish sufficient information for the identification of the land on the ground; the number of acres contained in the lands of applicant offered in exchange, and applicant's estimated value thereof; the number of acres contained in the state lands applied for in exchange, and applicant's estimated value thereof; a list of permanent improvements on the lands to be exchanged, applicant's estimated value thereof and the description of the location thereof in such manner as to facilitate the location thereof on the ground; a description of any leasehold interest in the land to be exchanged or ownership of any improvements thereon, together with the name and address of any such claimant; accompanying agreements, if any, with the leaseholder or owner of improvements on the lands to be exchanged shall be attached to the application and filed therewith.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-904 renumbered from Section R12-5-182 (Supp. 93-3). R12-5-904 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-904 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-905. Filing Fee**
Each application filed with the Department shall be accompanied by a filing fee of $10.00.

**Historical Note**
No original number assigned (Supp. 76-4). Emergency repeal filed September 26, 1990, effective September 27, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired, text of original rule placed back into effect December 27, 1990. Section R12-5-905 renumbered from Section R12-5-183 (Supp. 93-3). R12-5-905 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-905 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-906. Appraisal Fee**
The cost of appraising the value of the privately owned property to be exchanged shall be paid solely by such applicant in such manner and at such time as the Department may direct. The applicant shall pay to the Department the sum of $150.00 as an initial deposit toward such cost of appraisal; from time to time thereafter, upon the determination by the Department that such cost will exceed the amount of the initial deposit the Department will mail to applicant a written statement of the additional amount due and payment shall be made by applicant to the Department within 20 days from the date the notice is received.

**Historical Note**
No original number assigned (Supp. 76-4). Emergency repeal filed September 26, 1990, effective September 27, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired, text of original rule placed back into effect December 27, 1990. Section R12-5-906 renumbered from Section R12-5-184 (Supp. 93-3). R12-5-906 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-906 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-907. Classification**
Before any state land may be considered for exchange under the provision of this Article, the land shall be classified as suitable for such purposes in accordance with the provisions of A.R.S. § 37-212. Any person adversely affected by such decision may appeal from the decision as provided in A.R.S. § 37-214.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-907 renumbered from Section R12-5-185 (Supp. 93-3). R12-5-907 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-907 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-908. State Lands Not to be Exchanged**
State lands known to contain oil, gases and other hydrocarbon substances, coal or stone, metals, minerals, fossils and fertilizer of every name and description, in paying quantities, or uranium, thorium, or any other material which is or may be determined by the laws of the state, the United States, or competent judicial decision of federal or Arizona state court to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, shall not be exchanged. The Department shall make such determination and its findings shall be conclusive. State lands adjoining upon which there are producing mines, oil or gas wells, or adjoining lands known to contain any of such substances, minerals or metals in paying quantities, or uranium, thorium, or any other material peculiarly essential to the production of fissionable materials, whether or not of commercial value, shall not be exchanged. The Department shall make such a determination and its findings shall be conclusive.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-908 renumbered from Section R12-5-186 (Supp. 93-3). R12-5-908 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-908 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-909. Valuation of Land**
All lands exchanged shall be of substantially equal value. The Department shall appraise the values of all lands described in the application to establish the full cash value thereof, giving due regard to the last established full cash value for state ad valorem tax purposes. The appraised value of state lands being exchanged shall, in the opinion of the Department, be substantially the same as the appraised value of the lands sought by the application to be exchanged for lands managed by the Department, and such determination as to whether or not the lands to be exchanged are of substantially the same value shall be final.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-909 renumbered from Section R12-5-187 (Supp. 93-3). R12-5-909 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-909 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-910. Maps and Photographs**
The applicant shall furnish such map or maps of the lands to be exchanged, coded as to ownership in a suitable manner, as the Department may require and deem necessary to evaluate the application and assist in making an appraisal; and, in addition the Department may require an aerial photograph or photographs of such lands as it may specify in a request therefor.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-910 renumbered from Section R12-5-188 (Supp. 93-3). R12-5-910 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-910 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-911. Exchange Without Public Hearing**
If in a single transaction, the Department shall determine that the total area of state lands to be exchanged is less than five acres and its value, as computed pursuant to A.R.S. § 37-607, is less than $20,000.00, the Department shall publish notice of said proposed exchange in the same manner and places as is required for the sale of state lands the name of the applicant, a description of the lands involved, and a statement that the application may be examined in the office of the Department. Interested parties entitled to receive such notices are the Arizona Department of Economic Planning and Development, the Board of Supervisors of the county in which the lands to be exchanged are located, the mayor of any municipality within whose jurisdictional limits any part of the lands to be exchanged are located, holders of leases or permits on the state lands to be exchanged, and holders of leases or permits on the privately owned lands to be exchanged whose interest is of record in the office of the county recorder of the county wherein such privately owned lands are located.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-911 renumbered from Section R12-5-189 (Supp. 93-3). R12-5-911 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-911 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-912. Notices**
All notices shall be by regular mail to the last known address of a party in the Department's records, and shall conclusively deemed to have been received on the day following which such notice is deposited in the U.S. Mail by the Department.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-912 renumbered from Section R12-5-190 (Supp. 93-3). R12-5-912 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-912 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-913. Lands Conveyed to the State**
Lands conveyed to the state shall, upon acceptance of title and recording, be dedicated to the same purpose and administered under the same laws to which the lands conveyed were subject prior to such conveyance, but may be reclassified as provided in A.R.S. § 37-212.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-913 renumbered from Section R12-5-191 (Supp. 93-3). R12-5-913 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-913 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-914. Title, Reservations, Restrictions, and Encumbrances**
An exchange for state lands shall not be authorized, approved or made unless the owner of the lands to be traded for state land agrees to grant to the state an absolute title in fee simple without reservation, restriction, or encumbrance, except such reservations of minerals, easements or rights of use consistent with such reservations as may be specifically set forth and described in the application and

accepted and agreed to in writing by the Department prior to acceptance of title and recording. The applicant shall receive title in fee simple to the state lands being exchanged, except such reservations of minerals, easements pursuant to A.R.S. § 37-237, which notice shall contain descriptions of the properties involved, together with other terms and conditions of the exchange as the Department may deem pertinent. Any person residing in the county in which state owned land to be exchanged is located may, within ten days of the date of final publication of notice as provided herein, file a written protest of the exchange at the Department offices in Phoenix, Arizona, upon forms prescribed by the Department; any such protest shall contain a short and plain statement of the matters asserted and of the issues involved, the name, mailing address, and county of residence of the person filing such protest.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-914 renumbered from Section R12-5-192 (Supp. 93-3). R12-5-914 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-914 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-915. Exchange Requiring Public Hearing**

If, in any single transaction, the Department shall determine that the total area of state lands to be exchanged is equal to or greater than five acres or its value, as computed pursuant to A.R.S. § 37-607, is equal to $20,000.00 or more, the Department shall publish notice of said proposed exchange in the same manner and places as is required for the sale of state lands pursuant to A.R.S. 37-237, which notice shall contain descriptions of the properties involved, together with other terms and conditions of the exchange as the Department may deem pertinent. The Department shall also schedule a public hearing on the exchange contemplated in the notice, which hearing shall be held at the county seat of the county in which the state lands to be exchanged are located. The hearing shall be held not less than 15 days prior to the date of the proposed exchange, at which time any person may appear and protest such proposed exchange.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-915 renumbered from Section R12-5-193 (Supp. 93-3). R12-5-915 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-915 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-916. Notice to Interested Parties**

Prior to any public notice of a proposed exchange of state lands for privately owned lands, the Department and Selection Board shall give 30 days' notice in writing to other interested state agencies, counties, municipalities, and leaseholders on such lands that are or may be affected by the trade. Such notice shall contain or rights of use consistent with such reservation as may be specifically set forth and described in the application or which the Department may require at any time prior to the acceptance of title and recording.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-916 renumbered from Section R12-5-194 (Supp. 93-3). R12-5-916 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-916 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-917. Evidence of Title**

An applicant may be required to furnish the Department with evidence satisfactory to it that applicant can convey to the state of Arizona absolute title in fee simple, subject only to such reservations of minerals, easements or rights of use consistent with such reservations as the Department may specify. The Department may in its absolute discretion accept a policy or contract of title insurance insuring the state of Arizona in an amount specified by the Department against such loss which the state of Arizona may sustain by reason of the unmarketability of the title agreed to be conveyed to it; however, the acceptance by the Department of any such policy or contract of title insurance shall not in any event be considered as a waiver of the obligation of the applicant to convey to the state of Arizona title in absolute fee simple except as may specifically be modified in writing by the Department.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-917 renumbered from Section R12-5-195 (Supp. 93-3). R12-5-917 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-917 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-918. Controversy as to Title or Leasehold Rights**

The Commissioner may in his discretion hold in suspension or reject any application to exchange where it is found that title or leasehold rights in any of the land conveyed thereby are in controversy. The Department will not become a party to any controversy between different claimants to any of the land sought to be exchanged.

**Historical Note**

No original number assigned (Supp. 76-4). Section R12-5-918 renumbered from Section R12-5-196 (Supp. 93-3) R12-5-918 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-918 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-919. Judicial Notice**

The Department may take notice of judicially cognizable facts. In addition, notice may be taken of generally recognized technical or scientific facts within the Department's specialized knowledge; and the Department's experience, technical competence and specialized

knowledge may be utilized in the evaluation of any information and evidence submitted to it.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-919 renumbered from Section R12-5-197 (Supp. 93-3). R12-5-919 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-919 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-920. Compensation for Permanent Improvements**

The Department shall appraise the permanent improvements on the state lands offered in exchange in accordance with A.R.S. § 37-322 and the applicant shall pay the value thereof to the Department upon demand, and the Department shall pay the same to the owner of said improvements on the effective date of the exchange or in lieu thereof the applicant shall submit an agreement between the owner of the improvements and the applicant relieving the state of Arizona and the Department and Commissioner of all duty to effect due compensation for such improvements to the owner thereof.

**Historical Note**
No original number assigned (Supp. 76-4). Section R12-5-920 renumbered from Section R12-5-198 (Supp. 93-3). R12-5-920 repealed by summary action with an interim effective date of July 19, 1996; filed in the Office of the Secretary of State June 27, 1996 (Supp. 96-2). The proposed summary action repealing R12-5-920 was remanded by the Governor's Regulatory Review Council (September 10, 1996) which revoked the interim effectiveness of the summary rule. The Section in effect before the proposed summary action has been restored (Supp. 98-3).

**R12-5-921. Exchange of Road Rights-of-way over State Land**

**A.** Scope of rules. These rules apply only to exchange of road rights-of-way over state land under the provisions of A.R.S. §§ 37-615 to 37-617, inclusive and shall prevail over the supersede any existing policy or procedure to the extent that they are in conflict therewith. Such additional requirements may be imposed as the State Land Department from time to time determines to be necessary.

**B.** Definitions. Unless the context otherwise requires:
1. "Commissioner" means the State Land Commissioner.
2. "Selection board" means that board composed of the Governor, the State Land Commissioner and the Attorney General, as authorized by A.R.S. § 37-202.
3. "Private owner" means any individual person, firm, corporation, association, partnership, receiver, trustee, guardian, executor, administrator, fiduciary representative, or any group acting as a unit, but does not include the government of the state, the government of the United States, and any subdivision, agency or instrumentality, corporate or otherwise, of either of them.
4. "Department" means the State Land Department.

**C.** Application. The application shall be prepared and filed on such forms as the Department may from time to time prescribe. The application shall set forth such information as is required by law and these rules, including but not limited to the following:
1. The name, age and residence of the applicant;
2. A description of all road rights-of-way sought to be exchanged, which description shall be technically competent, definite, susceptible of only one interpretation, and furnish sufficient information for the identification of the road rights-of-way on the ground;
3. The number of acres contained in the road rights-of-way of the applicant offered in exchange and applicant's estimated value thereof;
4. The number of acres contained in the state road rights-of-way applied for in exchange and applicant's estimated value thereof;
5. A list of permanent improvements on the road rights-of-way to be exchanged, applicant's estimated value thereof and the description of the location thereof in such manner as to facilitate the location thereof on the ground;
6. A description of any leasehold interest in the road rights-of-way to be exchanged or ownership of any improvements thereon together with the name and address of any such claimant;
7. Accompanying agreements, if any, with the leaseholder or owner of improvements on the road rights-of-way to be exchanged shall be attached to the application and filed therewith.

**D.** Appraisal fee. The cost of appraising the value of the privately owned road rights-of-way to be exchanged shall be paid solely by such applicant in such manner and at such time as the Department may direct. The applicant shall pay to the Department the sum of $150.00 as an initial deposit toward such cost of appraisal; from time to time thereafter, upon the determination by the Department that such cost will exceed the amount of the initial deposit the Department will mail to applicant a written statement of the additional amount due and payment shall be made by applicant to the Department within 20 days from the date the notice is received.

**E.** Valuation of land. All road rights-of-way exchanged shall be of substantially equal value. The Department shall appraise the values of all road rights-of-way described in the application to establish the full cash value thereof, giving due regard to the last established full cash value for state ad valorem tax purposes. Whether or not the selected state road rights-of-way to be exchanged and the private road rights-of-way being offered are of substantially equal value shall be a determination of the Department and such determination shall be final.

**F.** Maps and photographs. The applicant shall furnish maps of the road rights-of-way to be exchanged, coded as to ownership in a suitable manner, as the Department may require and deem necessary to evaluate the application and assist in making an appraisal; and, in addition the Department may require aerial photographs of such road rights-of-way as it may specify in a request therefor.

**G.** Notices. All notices shall be by regular mail to the last known address of a party in the Department's records and shall conclusively be deemed to have been received on the day following the deposit of such notice in the U.S. Mail by the Department.

**H.** Road rights-of-way conveyed to the state. Road rights-of-way conveyed to the state shall upon acceptance and recording be dedicated to the same purpose and administered under the same laws to which the road rights-of-way conveyed were subject prior to such conveyance, but may be reclassified as provided in A.R.S. § 37-212.

**I.** Conveyance. The form and substance of all instruments of conveyance of the rights-of-way to be granted pursuant hereto shall be as determined by the Department. An applicant may be required to furnish the Department with evidence satisfactory to it that the applicant can convey to the state of Arizona

the offered road rights-of-way owned or held subject only to easements or rights consistent with the Department's use of such road rights-of-way as the Department may specify. The Department may in its absolute discretion accept a policy or contract of insurance insuring the state of Arizona in an amount specified by the Department against such loss which the state of Arizona may sustain by reason of the unmarketability of the title to the road rights-of-way agreed to be conveyed to it; however, the acceptance by the Department of any such policy or contract of insurance shall not in any event be considered as a waiver of the obligation of the applicant to convey to the state of Arizona except as may be specifically modified in writing by the Department.

**J.** Controversy as to rights. The Commissioner may in his discretion hold in suspension or reject any application to exchange where it is found that the rights in any of the road rights-of-way offered are in controversy. The Department will not become a party to any controversy between different claimants to any of the road rights-of-way sought to be exchanged.

**K.** Judicial notice. The Department may take notice of judicially cognizable facts. In addition, notice may be taken of generally recognized technical or scientific facts within the Department's specialized knowledge; and the Department's experience, technical competence and specialized knowledge may be utilized in the evaluation of any information and evidence submitted to it.

**L.** Commissioner's decision. The Commissioner shall render his decision regarding any such protest pursuant to A.R.S. § 37-604.

**Historical Note**
Adopted effective September 22, 1978 (Supp. 78-5). Emergency amendment filed September 26, 1990, adopted effective September 27, 1990, pursuant to A.R.S. 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Section R12-5-921 renumbered from Section R12-5-199 (Supp. 93-3).

## ARTICLE 10. TIMBER SALES

**R12-5-1001. Qualifications of Applicants**
Any person of the age of 21 years or over for leasing purposes or 18 years or over for purchasing purposes, a citizen of the United States, or who has declared his intention to become a citizen of the United States, or any firm, association or corporation which has complied with the laws of the state shall be qualified to purchase timber and natural products or lease natural products.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1001 renumbered from Section R12-5-200 (Supp. 93-3).

**R12-5-1002. Sale of Timber**
In selling saw timber from state lands, the rules and regulations of the Forest Service of the United States Department of Agriculture relating to the sale of timber from federal lands will be followed, unless the same are contrary to the laws of the state of Arizona.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1002 renumbered from Section R12-5-201 (Supp. 93-3).

**R12-5-1003. Application for Purchase of Saw Timber**
No particular form for application to purchase saw timber is prescribed by the Department. Such application must be made in writing to the Commissioner stating with particularity the description of the land upon which the timber is located and such other information as may be required by the Commissioner.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1003 renumbered from Section R12-5-202 (Supp. 93-3).

**R12-5-1004. Sale or Lease of Natural Products**
The sale or lease of natural products from state lands shall be made in accordance with general law and the general rules and regulations of the Department pertaining to the sale or lease of state land.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1004 renumbered from Section R12-5-203 (Supp. 93-3).

**R12-5-1005. Application to Purchase Natural Products**
No particular form for application to purchase natural products is prescribed by the Department. Such applications must be made in writing to the Commissioner stating with particularity the description of the land upon which the natural products are located, the type of natural product and the proposed use and the current market price therefor, together with such other information as may be required by the Commissioner.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1005 renumbered from Section R12-5-204 (Supp. 93-3).

**R12-5-1006. Application to Lease or Permit to Remove Natural Products**
Application to lease or for permit to remove natural products shall be made upon Land Division form.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1006 renumbered from Section R12-5-205 (Supp. 93-3).

**R12-5-1007. Rentals and Royalties**
The rental of a natural products lease or permit shall be not less than 5 cents per acre or $10.00 per lease or permit per annum, payable in advance and shall further provide for the payment to the state by such lessee or permittee of a royalty of not less than five percent of the gross value of the natural products removed from the land. The Commissioner may require, within his discretion, a deposit to guarantee the payment for the natural products removed.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1007 renumbered from Section R12-5-206 (Supp. 93-3).

**R12-5-1008. Form of Natural Products Lease or Permit and Provisions Thereof**
The form of a natural products lease offered by the Department to an applicant will be on Land Division form No. A-71, or in such other form in writing that the Commissioner may desire to issue, and will be subject to the provisions and supplemental conditions therein contained, and such other conditions as may be added thereto and the provisions of law and these rules and regulations.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1008 renumbered from Section R12-5-207 (Supp. 93-3).

**R12-5-1009. Monthly Reports**
Monthly reports shall be made by the holder of such lease or permit showing the amount of natural products sold or authorized to be sold and accompanied by a remittance due the state. Such report

shall be made in writing in the manner prescribed by the Commissioner in the lease or permit.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1009 renumbered from Section R12-5-208 (Supp. 93-3).

**R12-5-1010. Surface Damage**
Proper precaution shall be taken by the holder of a natural products lease or permit to protect the surface loss or injury to the state or to any person having a surface lease upon the land. Any damage resulting to a surface lessee by reason of excavations made by the natural products lessee or permittee shall be borne by the holder of said natural products lease or permit.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1010 renumbered from Section R12-5-209 (Supp. 93-3).

**R12-5-1011. Application to Assign**
Application to assign and application for assumption of lease or permit and transfer shall be made upon Land Division form No. A-13-1 and in accordance with the general rules and regulations relating to state lands. Upon approval of the application, the assignment of the lease will be made by the Commissioner upon the lease or permit where indicated and made of record in the Department.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1011 renumbered from Section R12-5-210 (Supp. 93-3).

**R12-5-1012. Rights of Lessee or Permittee**
**A.** No lessee or permittee shall use lands under permit or lease to him except for the purpose for which the lease or permit is issued, unless authorized by the Commissioner in writing.
**B.** Applications for a special use of lands under permit or lease to a lessee or permittee for purposes other than which the lease or permit was issued shall be made in writing in triplicate and shall state in detail the reasons for such use. The application shall be signed and verified as provided for in applications to lease. Upon approval of the application by the Commissioner, two copies of the application with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon will be returned by the Commissioner to the lessee, one copy thereof being retained in the files of the Department.
**C.** Failure of any lessee or permittee to use the land for the purposes for which he holds a lease or permit, without having been authorized so to do by the Commissioner in writing, may, in the discretion of the Commissioner, subject said lease or permit to forfeiture or to the cancellation as provided by law and these rules and regulations.

**Historical Note**
Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1012 renumbered from Section R12-5-211 (Supp. 93-3).

## ARTICLE 11. SPECIAL USE PERMITS

**R12-5-1101. Policy; Use of Lands**
It is the policy of the Commissioner in the administration of state lands to permit, where practical, the beneficial use thereof for special purposes not specifically provided for by existing law or the rules and regulations of the Land Division and the leasing of state lands. Permits for such special use will not be issued, however, in any case where the provisions of existing state land laws may be invoked. The contemplated use must not be in conflict with any federal or state laws.

An applicant must state in his application the use to which he intends to put the lands and he will not be permitted to devote them to any other use unless he secures an additional permit.

1. Qualifications of applicants. Any person of the age of 21 years or over, a citizen of the United States or who has declared an intention to become a citizen of the United States or any firm, association or corporation which has complied with the laws of the state, shall be qualified to apply for a special use permit.
2. Application for special use permit; renewal thereof; application fee. An application for general special use permit shall be made on Land Division form. Such application shall describe with particularity the land applied for, and shall state in detail the use to which the applicant intends to put the lands and the period for such use.
   A renewal of a general special use permit shall be made on Land Division form.
   If an applicant for renewal of a special use permit has not used the land for the purpose for which the initial permit was granted him, he must state in detail reasons therefor unless he has obtained from the Commissioner authorization in writing for such non-use as required by law and these rules and regulations.
3. Form of special use permit. The form of a general special use permit will be prepared by the Department and will be subject to the provisions and supplemental conditions therein contained and the provisions of law and these rules and regulations.
4. Term of permit. A special use permit shall not be issued for a period to exceed ten years or such lesser term as may be established by the Commissioner if he deems such lessor term to be in the best interest of the state.
   An application for an initial special use permit shall not be approved for a period of longer than two years.
   Unless it is deemed to be for the best interest of the state, it is not the policy of the Department to allow and issue a special use permit which will seriously interfere with the operations of an established lessee or permittee holding a lease or permit from the Department to the surface or subsurface rights to the land.
5. Minimum fee. No special use permit shall provide for an annual fee for less than appraised rental value of the land and in no event for less than 5¢ per acre per annum or a minimum of $10.00 per annum per permit.
6. Failure to use land for purposes authorized. Any permittee who shall fail to use the land for the purpose for which he holds a permit during the term of his permit, unless for good cause such failure has been authorized or ratified by the Commissioner in writing, may subject his permit to forfeiture or cancellation as provided by law and these rules and regulations.
7. Rights of permittee. All permits granted by the Commissioner are only a license or permit for the use of the land described in the permit for the purpose for which the permit is issued and in a manner compatible with the terms of said permit. The Commissioner reserves the right to grant other permits for the use of said lands for the removal of natural products therefrom. No permittee has the authority or right to issue to any person any right to the use of said land or the removal of any products therefrom, but such right of use vests solely in the Commissioner and must be granted by the Commissioner in writing.

8. Use of state lands. No permittee shall use lands under permit to him except for the purpose for which the permit is issued, unless authorized by the Commissioner in writing.
   Applications for a special use of lands under permit to a permittee for purposes other than which the permit was issued shall be made in writing in triplicate, and shall state in detail the reasons for such use. The application shall be signed and verified as provided for in applications for permit. Upon approval of the application by the Commissioner, two copies of the application with the Commissioner's approval and any limitations to such approval endorsed by the Commissioner thereon will be returned by the Commissioner to the permittee, one copy thereof being retained in the files of the Department. Failure of any permittee to use the land for the purposes for which he holds a permit, without having been authorized to do so by the Commissioner in writing, may, in the discretion of the Commissioner, subject said permit to forfeiture or to the cancellation as provided by law and these rules and regulations.
9. Advertising displays on state lands without permits unauthorized. The erection or maintenance on state lands of advertising displays, without permission, is unauthorized by law. Any person erecting or maintaining one or more advertising displays on state lands, except under authority of a permit issued by the Commissioner as hereinafter provided, shall be deemed a trespasser.
10. Advertising displays defined. The words "advertising displays" as used in this Article shall include structures of any kind with or without lighting effects erected or maintained for outdoor advertising purposes, upon which any poster, bill, printing, painting, or other advertisement of any kind whatsoever, including statuary, may be placed for advertising purposes but shall not include:
    a. Official notices or advertisements posted by or under the direction of any public or court officer in the performance of his official duties;
    b. Danger, precautionary and information signs erected by officials of the Federal Government or officials of the state or any subdivision thereof, or any nonprofit organization in the state, relating to the premises, or warning of the conditions of travel on a highway, or of forest fires, or road symbols, or speed limits, and including all civil defense directional signs;
    c. Highway markers or signs relating to any city, town, village or historic place or shrine;
    d. Notice of any railroad, bridge, ferry, or other transportation or transmission company necessary for the direction or safety of the public;
    e. Official signs, notices or symbols for the information of aviators, as to location, direction or landings, and conditions affecting safety in aviation;
    f. Signs containing 16 square feet or less bearing an announcement of any town, village or city, or nonprofit association, or chamber of commerce, advertising itself, or local industries, buildings, meetings, or attractions, but not advertising any particular individual or corporation engaged in business for a profit; providing not more than one sign bearing the same or similar announcement shall be placed on any one approach to the city or village involved;
    g. Signs erected by Red Cross authorities relating to Red Cross Emergency Station.
11. Applications for advertising display permits. Applications for permits must be executed upon Land Division form No. A-73-3. Each application must contain a sufficient recital of the facts relative to the advertising display, including its size and lighting effect, if any, to enable its substantial production from the description. A sketch showing the location on which the display is to be placed with respect to adjacent physical features should be furnished. The application should identify the highway or other medium of travel along which it is proposed to erect the display and should give the distance and direction of the site, measured by highway travel, to the nearest cities or towns. If the land on which it is desired to place the display has been surveyed, its description should be given in terms of the public land surveys.
12. Fees and rentals for advertising display permits
    a. A fee of $1.00 must accompany each application for an advertising display permit.
    b. The initial and annual charges for advertising displays shall be as follows: not less than 10¢ per annum for each square foot of sign surface and not less than $2.50 per annum for each display. The amount of the charge, subject to such minima, will be fixed by the Commissioner, which in no event will be less than the appraised rental value for such use.
    c. Due consideration will be given in fixing the amounts to all pertinent facts and circumstances, including the charges made for corresponding privileges on privately owned lands similarly situated.
    d. When conflicting applications are filed, due consideration will be given to the showing of each applicant and such action will be taken as is deemed to be warranted by the facts and circumstances.
13. Form of advertising display permit and terms. Special use permits to erect and maintain advertising displays on state lands may be issued by or under authority of the Commissioner on forms provided by the Department, or, in his discretion, will be issued on Land Division form and will be subject to the provisions and supplemental conditions therein contained and to such other conditions as may be added thereto, and the provisions of law and these rules and regulations. The term thereof shall be for periods of not exceeding ten years and the permits will be revocable in the discretion of the Commissioner at any time.
14. Renewal of advertising display permits. An advertising display permit issued pursuant to these rules and regulations may be renewed, in the discretion of the Commissioner, upon the filing of an application for renewal not more than 60 nor less than 30 days prior to its expiration.
15. Identification of authorized advertising displays. Each advertising display erected or maintained under a permit issued pursuant to these rules and regulations shall, for convenient identification, have the serial number of such permit marked or painted thereon.
16. Unauthorized advertising displays
    a. Persons who heretofore have erected advertising displays on state lands must either obtain permits to continue such displays, if authorized by these rules and regulations, or must remove the displays as promptly as possible.
    b. Where an unauthorized advertising display on state land is found, the Commissioner will take appropriate steps to secure its removal, unless the owner obtains a permit. The owner, if known, will be given notice in writing of the requirements. Displays

erected without permission prior to January 1, 1953, must be removed within three months from and after the date of the approval of these rules and regulations, unless application for a permit is made within that period. Displays erected prior to January 1, 1953, for which applications for permits are made but for which permits are refused, and unauthorized displays thereafter erected must be removed within such reasonable time as may be fixed by the Commissioner. If the owner fails to remove the display within the time allowed, it may be removed by the Commissioner and the owner will be held liable to the Department for expenses incurred in removing it. If the owner is unknown, or cannot be found, the display may be removed by the Commissioner without notice. A registered letter addressed to the owner at his last known place of residence, if returned unclaimed, will be considered sufficient service of notice.

17. Restrictions on advertising displays
    a. No advertising display shall be permitted which, in the opinion of the Commissioner, would mar the landscape, hide road intersections or crossing, or which, in his opinion, is otherwise objectionable.
    b. No advertising display shall be affixed to, or painted on any tree or rock situate on state lands or on any other natural object on such lands.
    c. All advertising displays shall conform to the applicable state laws and local ordinances or regulations.

**Historical Note**

Original rule, Art. XI, Subchapter B, Ch. II (Supp. 76-4). Emergency amendment filed September 26, 1990, adopted effective September 27, 1990, pursuant to A.R.S. 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Section R12-5-1101 renumbered from Section R12-5-241 (Supp. 93-3).

## ARTICLE 12. REPEALED

### R12-5-1201. REPEALED

**Historical Note**

Adopted as an emergency effective July 31, 1984, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 84-4). Emergency expired. Permanent rule adopted effective November 1, 1984 (Supp. 84-6). Section R12-5-301 repealed, new Section adopted by emergency action and filed September 26, 1990, effective September 27, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired, text of original Section placed back into effect December 27, 1990. Section R12-5-1201 renumbered from Section R12-5-301 (Supp. 93-3). R12-5-1201 repealed by summary action with an interim effective date of August 30, 1996; filed in the Office of the Secretary of State August 8, 1996 (Supp. 96-3). Adopted summary rules filed December 6, 1996; interim effective date of August 30, 1996 now the permanent effective date (Supp. 96-4).

## ARTICLE 13. REPEALED

### R12-5-1301. Repealed

**Historical Note**

Section R12-5-1301 renumbered from Section R12-5-501 (Supp. 93-3). R12-5-1301 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

### R12-5-1302. Repealed

**Historical Note**

Original rule, Art. III, Ch. IV (Supp. 76-4). Section R12-5-1601 renumbered from Section R12-5-560 (Supp. 93-3). R12-5-1302 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

## ARTICLE 14. REPEALED

*The heading for Article 14 was repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).*

## ARTICLE 15. REPEALED

*The heading for Article 15 was repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).*

## ARTICLE 16. REPEALED

### R12-5-1601. Repealed

**Historical Note**

Original rule, Art. III, Ch. IV (Supp. 76-4). Section R12-5-1601 renumbered from Section R12-5-560 (Supp. 93-3). R12-5-1601 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

### R12-5-1602. Repealed

**Historical Note**

Original rule, Art. III, Ch. IV (Supp. 76-4). Section R12-5-1602 renumbered from Section R12-5-561 (Supp. 93-3). R12-5-1602 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

### R12-5-1603. Repealed

**Historical Note**

Original rule, Art. III, Ch. IV (Supp. 76-4). Section R12-5-1603 renumbered from Section R12-5-562 (Supp. 93-3). R12-5-1603 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1604. Repealed**

**Historical Note**
Original rule, Art. III, Ch. IV (Supp. 76-4). Section R12-5-1604 renumbered from Section R12-5-563 (Supp. 93-3). R12-5-1604 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1605. Repealed**

**Historical Note**
Original rule, Art. III, Ch. IV (Supp. 76-4). Section R12-5-1605 renumbered from Section R12-5-564 (Supp. 93-3). R12-5-1605 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1606. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1606 renumbered from Section R12-5-570 (Supp. 93-3). R12-5-1606 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1607. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1607 renumbered from Section R12-5-571 (Supp. 93-3). R12-5-1607 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1608. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1608 renumbered from Section R12-5-572 (Supp. 93-3). R12-5-1608 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1609. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1609 renumbered from Section R12-5-573 (Supp. 93-3). R12-5-1609 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1610. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1610 renumbered from Section R12-5-574 (Supp. 93-3). R12-5-1610 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1611. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1611 renumbered from Section R12-5-575 (Supp. 93-3). R12-5-1611 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

**R12-5-1612. Repealed**

**Historical Note**
Adopted effective November 25, 1977 (Supp. 77-6). Section R12-5-1612 renumbered from Section R12-5-576 (Supp. 93-3). R12-5-1612 repealed by summary action with an interim effective date of May 3, 1996; filed in the Office of the Secretary of State April 8, 1996 (Supp. 96-2). Adopted summary rules filed August 13, 1996; interim effective date of May 3, 1996 now the permanent effective date (Supp. 96-3).

## ARTICLE 16.1. RENUMBERED

*Article 16.1, consisting of Sections R12-5-570 thru R12-5-576, renumbered to Article 16, Sections R12-5-1606 thru R12-5-1612 (Supp. 93-3).*

## ARTICLE 17. NATURAL RESOURCE CONSERVATION DISTRICTS

**R12-5-600. Scope of Rules and Regulations Governing Natural Resource Conservation Districts**
These rules and regulations shall supplement and implement Title 45, Chapter 8 of the Arizona Revised Statutes relating to natural resource conservation districts and they shall prevail over and supersede any existing policy or procedure of the Department to the extent that the policy rules or procedure are in conflict.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1701 renumbered from Section R12-5-600 (Supp. 93-3).

**R12-5-1702. General Policy of Rules and Regulations for Natural Resource Conservation Districts**
It is declared policy of the Legislature and the State Land Department to provide for the restoration and conservation of lands and soil resources of the state and the control and prevention of soil erosion and thereby to conserve natural resources, conserve wildlife, protect the tax base, protect public lands and in such manner to provide and promote the public health, safety and general welfare of the people.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1702 renumbered from Section R12-5-601 (Supp. 93-3).

**R12-5-1703. Petition for Natural Resource Conservation District**

Applications for natural resource conservation districts shall be made on petition forms which are, from time to time, prescribed by the state Natural Resource Conservation Commissioner. Forms for application shall be furnished by the Department.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1703 renumbered from Section R12-5-602 (Supp. 93-3).

**R12-5-1704. Contents of Petition**

Each petition for a natural resource conservation district shall contain:

1. The proposed name of the district.
2. A declaration that there is need, in the interest of preservation of property, health, safety and public welfare, for a district in the territory described.
3. A description of the exterior boundaries of the territory proposed to be organized.
4. A request that the Commissioner:
   a. Determine that the district be created.
   b. Define the boundaries of the proposed district.
   c. Direct that a referendum be held within the territory so defined on the question of the creation of a district.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1704 renumbered from Section R12-5-603 (Supp. 93-3).

**R12-5-1705. Qualifications for Acceptable Petition**

Twenty-five or more owners of land but not less than 25 percent of the owners of land lying within the limits of a proposed district, or if there are fewer than 25 owners of land in the proposed district, not less than 25 percent of all such owners may petition requesting that a district be organized.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1705 renumbered from Section R12-5-604 (Supp. 93-3).

**R12-5-1706. Hearing on Petition; Notice**

**A.** Within 90 days after a petition has been accepted by the Commissioner, notice shall be given by publication in at least two issues at intervals of not less than six days, of a newspaper of general circulation within the area affected, or if there is not such newspaper, a newspaper of general circulation within the county, of a hearing upon:
   1. The desirability and necessity, in the interest of preservation of property, health, safety and public welfare, of the creation of such district.
   2. The appropriate boundaries to be assigned to the district.
   3. The property of the petition and other proceedings taken.
   4. All related questions.

**B.** All owners of land within the limits of the territory described in the petition and of lands within any territory considered for addition to the described territory, and all other interested parties, may attend and be heard at such hearing.

**C.** If it appears on the hearing that it is desirable to include within the proposed district territory outside the area described in the petition, the hearing shall be adjourned and notice of further hearing given, in the manner provided by this Section, in the entire area considered for inclusion in the district.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1706 renumbered from Section R12-5-605 (Supp. 93-3).

**R12-5-1707. Conduct of Hearing**

If a hearing is necessary, it shall be conducted as set out below, unless otherwise specifically provided:

1. All land owners who are electors of the state within the proposed district and all other interested parties may attend such hearing and be heard.
2. The hearing will be presided over by the state Natural Resource Conservation Commissioner or his administrative officer.
3. It will be the duty of the presiding officer to
   a. Afford to all land owners within the proposed district or district proposed for dissolution and all other interested parties attending the hearing a reasonable opportunity to be heard and to present written statements, papers, maps and any other material or information relevant to the matters under consideration; and,
   b. Cause full minutes of the proceedings of the hearing to be kept.
4. The presiding officer may be guided by the following order of business. He shall:
   a. Call the hearing to order.
   b. State the order of business.
   c. Read the notice of the hearing, and have recorded in the minutes any objections which may be made as to the adequacy of said notice.
5. Explain the purpose of the hearing and provisions of the natural resource conservation districts law relative thereto.
6. Read the petition and the names of the land owners who have signed it. Any person present may contest the propriety of the petition, the genuineness of any signature thereto, the eligibility of any signer of the petition, and the adequacy of the total number of signers thereto.
7. State the boundaries of the proposed district or district proposed for dissolution as described in the petition, and as described in the notice of hearing if the descriptions are different and permit discussion of the same in relation to
   a. Topography of the proposed district and of the State;
   b. Composition of soils therein;
   c. Distribution of erosion;
   d. Prevailing land-use practices;
   e. Desirability and necessity of including within the boundaries the particular lands under consideration, and the benefits such lands may receive from being included within such boundaries;
   f. Relation of the proposed area to existing watersheds and agricultural regions, and to other soil conservation districts already organized or proposed for organization; and
   g. Such other physical, geographical, and economic factors as are relevant, having due regard to the legislative policy set forth in Section 45-2032 of the natural resource conservation districts law.
8. Throw the hearing open to a general discussion of the desirability of organizing the proposed district or dissolution of a district, and the appropriate boundaries to be given the proposed district. Such general discussion may be preceded by further explanatory statements by experts concerning the problems involved.
9. Provide for the discussion of such other matters as are in his judgment, relevant to the subject matter of the hearing. State that all interested parties may submit additional written evidence upon the matters considered at the hearing to the Natural Resource Conservation Commissioner

within ten days of the final adjournment of the hearing. Adjourn the hearing.

10. If, after completing the order of business at any hearing, it shall appear to the presiding officer that it may be desirable to include within the proposed district territory outside the area within which notice of the hearing has been given, he will declare the hearing adjourned and will submit to the Commissioner in writing his recommendation that due notice of further hearing be given throughout the entire area considered for inclusion in the district.
11. After final adjournment of a hearing, the presiding officer will transmit to the state Natural Resource Conservation Commissioner a report which will include
    a. A typewritten copy of the minutes of the hearing, together with such written statements, papers, maps, and other relevant material or information as may have been submitted to him;
    b. A summary of the minutes and of the evidence produced at the hearing, the attitude of the parties present towards the desirability of organizing the district, and the appropriate boundaries for such district; and,
    c. His recommendation as to whether there is need in the interest of preservation of property, health, safety, and public welfare, for the creation of the district, he will define the boundaries thereof.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1707 renumbered from Section R12-5-606 (Supp. 93-3).

**R12-5-1708. Determination by Commissioner**

**A.** If, after final hearing upon a petition, the Commissioner determines upon the facts presented and other relevant information that a district within the territory considered is in the public interest, he shall record such determination and define the boundaries of the district. In defining the boundaries, he shall consider:
1. The topography of the area.
2. The character of soils.
3. The distribution of erosion.
4. Prevailing land use practices.
5. The desirability and necessity of including within the boundaries of the district the particular lands under consideration and the benefits to be received by such inclusion.
6. The relation of the proposed area to existing watersheds and agricultural regions, and to other districts already organized or proposed for organization.
7. Such other physical, geographical and economic factors as are relevant.

**B.** In defining the boundaries of the district, the Commissioner shall not include therein any area, land or property of any person or persons who do not desire to have such area, land, or property included in such district. Notwithstanding any provision of this Chapter to the contrary, lands held under Certificate of Purchase or lease from the state shall not be included in any district if the holder or holders of Certificates of Purchase or the leases therefor do not desire such lands included.

**C.** If the Commissioner determines that it is not in the public interest for a district to function in the territory considered, he shall record such determination and deny the petition.

**D.** After expiration of 18 months from the date of entry of a determination by the Commissioner that operation of a proposed district is not administratively and economically feasible, a denial of a petition pursuant to that determination, petitions may again be filed and action taken in accordance with the provisions of this Chapter.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1708 renumbered from Section R12-5-607 (Supp. 93-3).

**R12-5-1709. Referendum; Election of Supervisors**

**A.** Within a reasonable time after the Commissioner has recorded his determination that it is in the public interest that a district be organized and has defined the boundaries thereof, he shall hold a referendum within the proposed district upon the question of the creation of the district, and an election to elect three supervisors. He shall promulgate regulations for the conduct of such referendum and election and prescribe a procedure for the determination of persons eligible to vote. The referendum and election of supervisors shall be conducted by separate ballots.

**B.** The ballot for the referendum shall:
1. Describe the boundaries of the proposed district as determined by the Commissioner.
2. Contain the propositions: "For the creation of a district" and "against the creation of a district", with a square after each proposition.
3. An instruction to mark an X in the square after the proposition for which the voter wishes to vote.

**C.** Only owners of land lying within the boundaries of the territory described shall be eligible to vote on the referendum, but any such owner who is not a qualified elector of the district, or any owner who is a qualified elector but is unable because of illness or absence from the district to appear at the polls, may appoint, in writing on a form prescribed by the Commissioner, a qualified elector of the district as his agent or proxy. The appointment of agent or proxy shall be presented to the board of election, and if it is found to be bona fide and in proper form, the holder thereof shall be allowed to vote in behalf of the owner executing the appointment on the question of creation of the district only. The appointment shall be filed with the ballots and other election returns.

**D.** Candidates for supervisor shall file nomination petitions with the Commissioner in the manner prescribed by the Commissioner. Any qualified elector of the proposed district may sign the petitions of not more than three candidates. The names of candidates shall appear on the election ballot in alphabetical order by surnames, with a square opposite each name, and an instruction to mark an X in the squares opposite the names of not more than three candidates for whom the voter wishes to vote.

**E.** No informality in the conduct of any referendum or election held under the provisions of this Chapter, or in any manner relating thereto, shall invalidate the result thereof if notice has been given substantially as prescribed in 45-2032, and the referendum and election has been fairly conducted. All expenses of a referendum and election shall be paid by the Commissioner.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1709 renumbered from Section R12-5-608 (Supp. 93-3).

**R12-5-1710. Proclamation of Result of Referendum**

If not less than 65 percent of the land owners voting at the referendum and the owners of not less than 50 percent of the land, other than publicly owned, lying within the proposed district, vote in favor of the creation thereof, the Commissioner shall declare the district organized, otherwise he shall declare the proposal defeated.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1710 renumbered from Section R12-5-609 (Supp. 93-3).

**R12-5-1711. Powers of District**

**A.** A district is empowered to:
1. Conduct surveys, investigations and research relating to the character of the soil, soil erosion prevention within a farm or ranch, methods of cultivation, farm and range practices, seeding, eradication of noxious growths and such other measures as will aid farm and range operations, disseminate information pertaining thereto, and carry on research programs with or without the cooperation of the state, the United States or agencies thereof.
2. Conduct demonstration projects within the district on lands owned or controlled by the state or any of its agencies with the consent and cooperation of the agency having jurisdiction thereof, and on any other lands within the district upon obtaining the consent of the owner thereof or the necessary rights or interests therein, in order to demonstrate by example the means, methods and measures by which soil and soil resources may be conserved, and soil erosion and soil washing prevented and controlled.
3. Cooperate and enter into agreements with a landowner, operator or any agency or subdivision of the state or Federal Government to carry on programs of soil erosion prevention, methods of cultivation, cropping practices, land leveling and improvement on agricultural lands, and programs limited to methods of proper range use, reseeding and the eradication of noxious growth on grazing lands, all within the limits of an individual farm or ranch and subject to such conditions as the supervisors deem necessary.
4. Acquire by purchase, exchange, lease or otherwise, any property, real or personal, or rights or interest therein, maintain, administer and improve any properties acquired, receive income therefrom and expend it in carrying out the purposes of this Chapter, and sell, lease or otherwise dispose of any property or interest therein in furtherance of the purposes of this Chapter.
5. Make available on such terms as it prescribes to landowners within the district, agricultural and engineering machinery and equipment, fertilizer, seed and such other material or equipment as will assist the landowners to carry on operations upon their lands for the purposes and programs authorized by this Chapter.
6. Develop, publish and bring to the attention of owners of lands within the district, comprehensive plans for the conservation of soil resources within the district which shall specify in such detail as may be feasible the acts, procedures, performances and avoidances necessary or desirable for the effectuation of the plans.
7. Sue and be sued in the name of the district, have a seal, which shall be judicially noticed, have perpetual succession unless terminated as provided in this Chapter, make and execute contracts and other instruments necessary or convenient to the exercise of its powers, and make, amend and repeal rules and regulations not inconsistent with this Chapter to carry into effect its purposes and powers.
8. Accept donations, gifts and contributions in money, services, materials or otherwise, and use or expend them in carrying on its operations.

**B.** No provision of law with respect to the acquisition, operation or disposition of property by other public bodies shall be applicable to a district organized under this Chapter unless specifically stated therein.

**C.** After the formation of any district under the provisions of this Chapter, all participation thereunder shall be voluntary, notwithstanding any provision of this Chapter to the contrary.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1711 renumbered from Section R12-5-610 (Supp. 93-3).

**R12-5-1712. Limitation of Powers**

**A.** Nothing in this Chapter shall affect existing water rights or in any manner contravene the provisions of this Title.

**B.** No district or public body shall undertake or cooperate in the planning, construction, improvement or maintenance of any structure, dike or channel for the storage, spreading, diversion or conveyance of water resulting in the consumptive use of water, on any watershed or drainage area which supplies or contributes water for the irrigation of lands within any irrigation district or for the irrigation of other lands having established rights in such water, without first submitting the plans therefor to the governing body of such irrigation district or districts. Such governing body shall, within 45 days after receipt of such plans, either approve or reject them. The approval may be given for range lands soil conservation practices by agreement on an annual or continuing basis between the governing bodies of the affected irrigation districts and the supervisors of such natural resource conservation districts. If the governing body fails to approve or reject the plans within 45 days, it shall be deemed to have approved them. If the governing body rejects the plans, the district or public body proposing such plans may appeal to the Commissioner. The appeal shall be taken within 45 days after such decision. The Commissioner shall review the decision, and may approve the plans only if after investigation and hearing he finds that the work proposed to be done will not result in the consumptive use of water. An appeal from the decision of the Commissioner may be taken by either party pursuant to the provisions of § 37-214. The provisions of this subsection shall not preclude the use of any other legal remedy otherwise available to any person or interested party.

**C.** The diversion, application or use of water by means of any improvement constructed, maintained or operated under the provisions of this Chapter shall not be construed to be an appropriation of or vest any right to the use of public water.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1712 renumbered from Section R12-5-611 (Supp. 93-3).

**R12-5-1713. Proceedings to Organize Districts**

A district shall be organized and be a body corporate upon taking the following steps:
1. The supervisors elected as provided in § 45-2035 shall present to the Secretary of State an application, signed and acknowledged by each supervisor, setting forth:
   a. That a petition for the creation of the district was approved by the Commissioner pursuant to the provisions of this Chapter.
   b. The name and official residence of each supervisor, and a certified copy of their notification of election.
   c. The name proposed for the district.
   d. The location of the proposed office of the supervisors of the district.
2. The application shall be accompanied by a certificate of the Commissioner which shall set forth:
   a. The boundaries of the district as determined by him.

b. That a petition was filed, notice issued and a hearing held as prescribed by law.
c. That for a district to function in the proposed territory was determined by the Commissioner to be in the public interest.
d. That notice was given and a referendum on the question of the creation of the district and an election of supervisors was held.
e. That the results of the referendum showed not less than 65 percent of the votes cast, representing not less than 50 percent of the owners of land, to be in favor of the creation of the district.
f. That the supervisors signing the application are the duly elected supervisors of the district.

3. The Secretary of State shall examine the application and statement and, if he finds that the name proposed for the district is not identical with or so similar to that of any other district as to lead to confusion, he shall record them. If the name proposed is identical with or so similar to another district as to lead to confusion, he shall certify that fact to the Commissioner who shall submit another name. Upon receipt of a new name, free from defects, the Secretary of State shall record the application and the statement.
4. The Commissioner shall appoint two supervisors from a panel of candidates compiled by the elected supervisors and presented to the temporary chairman of the elected supervisors. Candidates for the office of appointed supervisors shall be qualified electors of the state. Appointed supervisors shall continue to serve until May 31 next even-numbered year or until their successors are otherwise appointed.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1713 renumbered from Section R12-5-612 (Supp. 93-3).

**R12-5-1714. Certificate of Organization**
The Secretary of State shall issue to the supervisors a certificate, under the seal of the state, certifying the organization of the district, and record the certificate with the application and statement. The district shall include the territory as determined by the Commissioner, but it shall not include any area within the boundaries of another district, nor shall it include any area, land or property of or lands held under Certificate of Purchase or lease from the state by any person or persons, which area, land, property or leaseholds lie within the geographical limits of such district but the owners or holders of Certificates of Purchase of leases of which do not desire to come within the district.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1714 renumbered from Section R12-5-613 (Supp. 93-3).

**R12-5-1715. Certificate as Evidence of Legal Establishment**
In any action or proceeding involving the validity or enforcement of, or relating to, any contract, proceeding or action of the district, the district shall be deemed to have been established in accordance with the provisions of this Chapter upon proof of the issuance of the certificate of organization by the Secretary of State. A copy of the certificate certified by the Secretary of State shall be admissible in evidence in any action or proceeding, and shall be proof of the filing and contents thereof. In like manner, any district combined and consolidated with an adjacent district or districts and reorganized and renamed prior to the date of this Section shall be deemed to have been established upon proof of certifications and official maps filed with the Secretary of State by the division of natural resource conservation of the State Land Department.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1715 renumbered from Section R12-5-614 (Supp. 93-3).

**R12-5-1716. State Financial Assistance to Natural Resource Conservation Districts; Application; Criteria**
**A.** The Commissioner shall include in his annual State Land Department budget request a sum not to exceed the total of $3,000.00 each for distribution by the Commissioner of natural resource conservation to those natural resource conservation districts which have applied for, have met the criteria for and have been approved for receiving state financial assistance for the next ensuing fiscal year, as provided in this Section.
**B.** Any natural resource conservation district desiring to receive state financial assistance for the next ensuing fiscal year shall make application therefor to the Commissioner not later than July 20, on a form supplied by the division of natural resource conservation. Each application shall include, but not be limited to:
1. The number of acres of land lying within the district.
2. The extent of conservation programs proposed to be undertaken during the fiscal year for which the financial assistance is being requested.

**C.** Upon receipt of the application, the Commissioner shall determine whether or not such funds for the district will be included in the budget request for the State Land Department for the next ensuing fiscal year and shall promptly notify the district of his determination.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1716 renumbered from Section R12-5-615 (Supp. 93-3).

**R12-5-1717. Yearly Requirement for Districts**
The Commissioner, after a district is formed, shall require the supervisors of each district to file with the Department annually, the records of operation of the district for the preceding year in such form and detail as he prescribes.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1717 renumbered from Section R12-5-616 (Supp. 93-3).

**R12-5-1718. Change in Boundaries; Combination or Division of Districts; Change in Name of Districts**
**A.** Petitions for a change in the boundaries of existing districts, or the combination of two or more existing districts may be filed with the Commissioner by a majority of supervisors of the board or boards of supervisors of the district or districts to be affected. In the case of a proposed combination of two or more existing districts, the petition shall state the proposed boundaries of the new combined district, the proposed name, and shall propose a method, which has been mutually agreed upon by all boards of supervisors of affected districts, as to the future terms of office of existing district supervisors, and how such terms will be determined. The Commissioner may require such hearings as he deems appropriate to enable him to make a determination as to the desirability of the proposed changes. If the Commissioner makes a determination in favor of the changes, he shall certify the fact of such change to the Secretary of State and shall notify the board of supervisors of the district, or districts, setting out in such notice the new boundaries and the name of the district and confirmation of terms of the supervisors. The Secretary of State shall make and issue a corrected certificate of organization upon receipt of such certification from the Commissioner.
**B.** The board of supervisors of any one or more districts organized under the provisions of this Section may submit to the Commissioner a petition signed by a majority of the members

of the board of supervisors of each district affected requesting a division of a district, a combination of two or more districts, or a transfer of land from one district to another. The Commissioner shall make a determination as to the practicability and feasibility of the proposed change, giving due regard to the same considerations as provided in this Section for changes in district boundaries by other methods. If the Commissioner determines that the proposed change of district boundaries is not administratively practicable and feasible, he shall record such determination and proceed with the reorganization of the district or districts affected in the same manner as provided in this Section for changes in district boundaries by other methods.

**C.** Petitions for a change in the name of a district may be submitted to the Commissioner by a majority of supervisors of the board of supervisors of a district. If the Commissioner approves the change of name, he shall certify the fact of such change of name to the Secretary of State and shall notify the board of supervisors of the district of such change, setting out in such notice the new name of the district. The Secretary of State shall make and issue a corrected certificate of organization upon receipt of such certification from the Commissioner.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1718 renumbered from Section R12-5-617 (Supp. 93-3).

**R12-5-1719. Dissolution of District**

**A.** At any time after five years following the organization of a district, any 25 owners of land or not less than 20 percent of the owners of land lying within the boundaries of the district may file a petition with the Commissioner praying that the operations of the district be terminated and its existence discontinued. The Commissioner shall conduct such public meetings and hearings upon the petition as may be necessary to assist in the consideration thereof.

**B.** Within 60 days after filing of the petition, the Commissioner shall give notice of the holding of a referendum and shall supervise the referendum and issue appropriate regulations governing the conduct thereof. The question shall be submitted by ballots upon which the propositions, "For terminating the existence of the (name of district)" and "Against terminating the existence of the (name of district)", shall be printed, with a square after each proposition and an instruction to mark an X in the square following the proposition for which the voter desires to vote. Only owners of lands lying within the boundaries of the district shall be eligible to vote on the referendum. No informality in the conduct of the referendum or in any matter relating thereto shall invalidate the referendum or the result thereof, if due notice thereof has been given substantially as provided in this Chapter and the referendum has been fairly conducted.

**C.** If 65 percent of the landowners voting thereon vote to terminate the existence of a district, the Commissioner shall advise the supervisors to conclude the affairs of the district. The supervisors shall dispose of all property belonging to the district at public auction and shall pay the proceeds of the sale to the state treasury.

**D.** The supervisors shall thereupon file a verified application with the Secretary of State for discontinuance of the district, together with the certificate of the Commissioner setting forth the determination of the Commissioner that the continued operation of the district is not administratively feasible. The application shall recite that the property of the district has been disposed of and the proceeds paid over as provided in this Section, and shall include a full accounting of the properties and the proceeds of the sale. The Secretary of State shall issue to the supervisors a certificate of dissolution and shall record the certificate in his office.

**E.** The Commissioner shall not entertain a petition for the discontinuance of any district, nor conduct a referendum thereon, nor make any determination pursuant thereto, more than once in five years.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1719 renumbered from Section R12-5-618 (Supp. 93-3).

**R12-5-1720. District Supervisors; Term of Office; Biennial Election**

**A.** The governing body of a district shall consist of five supervisors, three of whom are to be elected and two appointed by the Commissioner. Except as to the first supervisors, whose election and terms are prescribed in § 45-2035, the term of each elected supervisor shall be six years, beginning on June 1 following his election. As prescribed in § 45-2036, the terms of the two supervisors appointed by the Commissioner shall be until May 31 of the next even-numbered year or until their successors are otherwise appointed.

**B.** An election shall be held on the first Saturday in May of each even-numbered year, at which one supervisor of the district shall be elected. Any person desiring to be a candidate shall file with the Commissioner a nomination petition in such form as the Commissioner prescribes, at least ten days prior to the election, containing the signatures of not less than 25 qualified electors of the district. No person shall be eligible to be a candidate for supervisor unless he is a qualified elector of the district. The names of candidates shall appear on the ballot in alphabetical order by surnames, with a square after each name and an instruction to mark an X in the square after the name of the voter's choice. The governing body of a district may provide a mail ballot to a qualified district elector for which the district governing body has a first class mailing address. Qualified electors of a district who wish to vote by mail ballot shall file a first class mailing address with the district governing body at least 30 days prior to the date of the election. Qualified district electors who receive ballots in proper form from the district governing body may cast their votes by mail. Mail ballots to be counted shall be received at the place designated and within the time prescribed by the district supervisors and clearly specified in the notice of election. Only qualified electors of the district shall have the right to vote. The district governing body shall provide at least one polling place in the district for qualified voters who wish to vote in person. If two or more candidates receive the same number of votes, the successful candidate shall be determined by lot.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1720 renumbered from Section R12-5-619 (Supp. 93-3).

**R12-5-1721. Power of the Commissioner to Remove District Supervisor**

The Commissioner may remove a district supervisor from such office if the Commissioner determines, after reasonable notice and impartial hearing, that the supervisor is guilty of misfeasance, malfeasance or nonfeasance in office. For purposes of this subsection, nonfeasance includes the failure to attend three consecutive meetings of district supervisors without reasonable excuse.

**Historical Note**
Original rule, Ch. V (Supp. 76-4). Section R12-5-1721 renumbered from Section R12-5-620 (Supp. 93-3).

**R12-5-1722. Organization of Supervisors; Vacancies**

**A.** At the first meeting of the supervisors following an election, they shall organize by electing a chairman and a vice chairman and such other officers as are deemed necessary from among their number to serve for the ensuing two years.

**B.** If a vacancy occurs in the office of an elected supervisor otherwise than by expiration of term, the Commissioner may appoint a qualified elector of the district to serve until June 1 of the next even-numbered year, when a successor shall be elected for the remainder of the term.

**C.** District supervisors may employ a secretary and such other agents, employees and technical or professional experts as they may from time to time require, and may determine qualifications, compensations and duties applicable to any agent, employee or expert engaged.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1722 renumbered from Section R12-5-621 (Supp. 93-3).

**R12-5-1723. Powers and Duties of Supervisor**

**A.** The supervisor shall:

1. Provide for the keeping of a record of all proceedings, resolutions, regulations and orders issued or adopted.
2. Furnish to the Commissioner copies of such ordinances, rules, regulations, orders, contracts, forms or other documents adopted or employed, and such information concerning their activities as the Commissioner requests.

**B.** The supervisors may appoint additional advisory members to the district governing body and delegate to the chairman or any member, or to any agent or employee, such powers and duties as they deem proper.

**C.** District supervisors shall require and provide for the execution of a corporate surety bond in suitable penal sum for, and to cover, any person entrusted with the care or disposition of district funds or property.

**D.** The compensation of the district supervisors shall be determined by such supervisors meeting as the governing body of such district, but shall not exceed $20.00 per day and mileage at the rate of 10¢ per mile and actual and necessary expenses of attending district meetings, and a similar per diem and actual and necessary expenses while engaged in official business by order of such supervisors.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1723 renumbered from Section R12-5-622 (Supp. 93-3).

**R12-5-1724. Cooperation with State Agencies**

Agencies of this state which have jurisdiction over or are charged with the administration of state-owned lands, and of any county or other governmental subdivision of the state which have jurisdiction over, or are charged with the administration of, any county-owned or other publicly owned lands lying within the boundaries of any natural resource conservation district, may cooperate fully with the supervisors of such districts in the effectuation of programs and operations undertaken by the supervisors under the provisions of this Chapter. The supervisors of any district organized under the provisions of this Chapter may cooperate with any municipality within the boundaries of the district on matters relating to soil conservation or land use planning.

**Historical Note**

Original rule, Ch. V (Supp. 76-4). Section R12-5-1724 renumbered from Section R12-5-623 (Supp. 93-3).

## ARTICLE 18. MINERAL LEASES

**R12-5-1801. Definitions**

Unless the context otherwise requires:

1. "Commissioner" means the State Land Commissioner.
2. "Contiguous" means adjoining and having at least part of one side in common.
3. "Department" means the State Land Department.
4. "Geochemical surveys" means surveys on the ground for mineral deposits by the proper application of principles and techniques of the science of chemistry as they relate to the search for and the discovery of mineral deposits.
5. "Geological surveys" means surveys on the ground for mineral deposits by the proper application of the principles and techniques of the science of geology as they relate to the search for and discovery of mineral deposits.
6. "Geophysical surveys" means surveys on the ground for mineral deposits through the employment of generally recognized equipment and methods for measuring physical differences between rock types or discontinuities in geological formations.
7. "Lessee" means the holder of any lease issued pursuant to the provisions of these rules and regulations and includes the holder of an approved assignment of such lease.
8. "Mineral" means all natural inorganic substances that may be extracted from the earth, and includes mineral compounds and mineral aggregates, natural building stone, saline deposits, and such organic substances as coal and guano, but does not include petroleum and related hydrocarbon gases or other natural gases.
9. "Mining" means extracting mineral from the earth, but shall not include any activity carried on after the mineral has been detached from the earth and has reached the natural or original surface of the earth.
10. "Qualified expert" means an individual qualified by education or experience to conduct geological, geochemical, or geophysical surveys, as the case may be.
11. "Shipping" means the transportation of extracted mineral, after mining, to the place of processing or sale.

**Historical Note**

Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1801 renumbered from Section R12-5-701 (Supp. 93-3).

**R12-5-1802. Miscellaneous Rules**

**A.** Scope. These rules and regulations are general mining leasing rules implementing the Arizona Revised Statutes governing the leasing of state lands for mineral claims and supersede all prior and existing rules and regulations solely applying to such mineral leasing.

**B.** Qualifications to locate a mineral claim. Any citizen of the United States, any partnership or association of citizens, or any corporation organized under the laws of the United States or any state or territory thereof, and authorized to transact business in the state, who discovers a valuable mineral deposit on any state land may enter upon and locate the deposit as a mineral claim.

**C.** State land subject to location. Any state-owned land containing a valuable mineral deposit may be located as a mineral claim except those lands under state lease for mineral, commercial or homesite purposes and those lands being specifically used or controlled by state institutions.

**D.** Locator's right to possess and operate mineral claim

1. The locator's right to a mineral claim shall be initiated by discovery of a valuable mineral deposit. The continuation of such right shall be dependent upon the locator's performance of the necessary acts as set out in these rules.
2. The right to operate a mineral claim not under lease shall be limited to those acts essential to the procedures leading to lease issuance, including the right to remove from any

claim only that amount of mineral necessary for sampling purposes.

**E.** Types of claims. The Department recognizes two types of mineral claims as differentiated by statutory provisions regarding their manner of location:

1. Type A claim. A valuable mineral deposit occurring as a vein, lode or ledge, located in the manner provided for the location of mineral claims upon the public domain of the United States.
2. Type B claim. A valuable mineral deposit occurring in any manner, located in conformity with the lines of the public land survey.

**Historical Note**

Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1802 renumbered from Section R12-5-702 (Supp. 93-3).

**R12-5-1803. Type A Claims on State Lands**

**A.** Discovery required before location. No Type A claim shall be deemed validly located until after discovery of a valuable mineral deposit occurring as a vein, lode or ledge within the limits of the claim.

**B.** Orienting claim. The claimant should determine, if possible, the general course of the vein in either direction from the point of discovery, by which direction he will be governed in marking the boundaries of his claim on the surface.

**C.** Maximum dimensions of Type A claim. The length of a Type A claim shall not exceed 1500 feet along the course of the discovery vein. The lateral extent of the claim shall not exceed 600 feet.

**D.** Method of locating claim; monument. Location of a Type A claim shall be made by erecting at or contiguous to the point of discovery a conspicuous monument of stones not less than three feet in height, or an upright post securely fixed and projecting at least four feet above the ground.

**E.** Location notice; amendments

1. A location notice signed by the name of the locator shall be posted in or on the monument or post and shall contain:
   a. The name of the claim located;
   b. The name of the locator;
   c. The date of location;
   d. The length and width of the claim in feet, and the distance in feet from the point of discovery to each end of the claim;
   e. The general course of the claim;
   f. The locality of the claim with reference to some natural object or permanent monument whereby the claim can be identified.
2. No right of location shall be acquired until the foregoing requirements have been accomplished.
3. The notice may be amended at any time and the monument changed to correspond with the amended location, but no change shall be made which will interfere with the rights of others.

**F.** Recording and filing location notice. The locator of a Type A claim shall have 30 days from the time of location in which to:

1. Cause to be recorded in the office of the county recorder of the county in which the claim is located a copy of the location notice; and,
2. File in the office of the State Land Commissioner one copy of the location notice together with the county recorder's certificate of recordation of the copy mentioned next above.

**G.** Discovery work; completion of Type A location

1. The locator of a Type A claim shall have 90 days from the time of location in which to:
   a. Sink a discovery shaft on the claim a minimum of four feet wide by six feet long to a depth of at least eight feet from the lowest part of the rim of the shaft at the surface or deeper, if necessary, to a depth where mineral in place is disclosed in the shaft.
      i. Any open cut, adit or tunnel equal in amount of work to the sinking of such a shaft and which cuts a lode or mineral in place at a depth of ten feet from the surface shall be equivalent as discovery work, to a shaft sunk from the surface.
      ii. Development drilling of a reasonable value of $100.00 shall be equivalent to the minimum dimensioned shaft sunk from the surface as required in paragraph (1) above. Development drilling may be centrally located and need not be upon each claim of a contiguous group so held by the locator but shall be so located as to be part of a plan of development for the group, and in no event shall the minimum requirement for each individual claim be dispensed with.
   b. Monument the claim on the ground so that its boundaries can be readily traced. Such monumenting shall consist of six substantial posts projecting at least four feet above the surface of the ground, or six substantial stone monuments at least three feet high, one at each corner of the claim and one at the center of each end line.
2. The minimum requirements for completing each Type A location shall be:
   a. Recording and filing of location notice as provided by rule 206.
   b. Perform the work prescribed under rule 207(A)(1).
   c. Monumenting the claim on the ground pursuant to rule 207(A)(2).

   Failure to do these things in the time and place specified shall be an abandonment of the claim and all right and claim of the discoverer and locator shall be forfeited.

**H.** Proof of valuable mineral. The locator of a Type A claim shall, within 30 days after the time of location, submit to the Commissioner, in a form acceptable to the Commissioner, the locator's evidence for proof of a valuable deposit of mineral in place within the boundaries of the claim.

Final determination as to proof shall be made by the Commissioner from the evidence submitted or by any other means at his disposal.

**I.** Preferred right of Type A locator to lease of claim. The locator of a Type A claim, having fulfilled the minimum location requirements as provided by these rules, shall have a preferred right to a mineral lease of his claim within 90 days after the date of location. The preferred right then established, although not a contractual right against the state, shall be a better and superior right to lease than that held by any subsequent locator.

**J.** Application for lease of Type A claim

1. The locator of a Type A mining claim may apply to the Department for a lease of his claim at any time within 90 days after location of the claim, provided: a properly certified copy of the recorded location notice has been filed with the Commissioner. The lease application, in such form as the Commissioner may prescribe, shall be accompanied by:
   a. Lease application fee per claim.
   b. Advance annual rental of $15.00 per claim.
   c. A plat of a survey to scale, accurately showing location of the claim properly tied-in to known U.S. Pub-

lic Survey corner monuments to properly identify the land claimed.

d. Written statement, certified by the locator, attesting to the completion of location and discovery work as required by these rules.

e. A reasonably accurate drawing showing the proposed route of ingress and egress over other state land concerned.

2. Ordinarily, both the application to lease, and the lease, shall be on the basis of one application per claim and one lease per claim. However,

a. The Commissioner may permit the acceptance of applications embracing more than one claim, provided the claims are contiguous, and further provided, that prior arrangement for such consolidation has been made and approval had; and

b. The Commissioner may permit or cause consolidation of claims for lease purposes to the extent consistent with required Departmental administrative procedures.

Any consolidation thus effected shall not alter the provisions of subsection (A) above.

**Historical Note**

Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1803 renumbered from Section R12-5-703 (Supp. 93-3).

**R12-5-1804. Type B Mineral Claims on State Lands**

**A.** Discovery required before location. No Type B mineral claim shall be deemed validly located until after discovery of a valuable mineral deposit within the limits of the claim.

**B.** Orienting claim. The claimant should before locating his claim, ascertain, if possible, the extent and direction of the deposit as a guide governing the conformation of his claim to the lines of the public land survey.

**C.** Dimensions of Type B mineral claim. The length of a Type B mineral claim shall not ordinarily exceed 1320 feet nor shall the width ordinarily exceed 660 feet. Such slight deviations as are necessary to accommodate irregular surveys are permissible, but in no event shall the area encompassed exceed 20 acres.

**D.** Method of locating claim; monumenting. Location of a Type B mineral claim shall be marked on the ground by erecting a monument or placing a post extending at least three feet above the surface of the ground as nearly as possible at each angle corner of the claim.

**E.** Location memorandum. A location memorandum shall be placed in each monument or on each post stating the name of the locator, the name of the claim and designating the corner by reference to the cardinal points.

**F.** Recording and filing location notice

1. The locator of a Type B mineral claim shall have 30 days from the time of location in which to:

a. Cause to be recorded in the office of the county recorder of the county in which the claim is located a notice of location; and

b. File in the office of the State Land Commissioner one copy of the recorded location notice together with the county recorder's certificate of recordation.

2. The notice of location shall set forth:

a. The name of the locator,

b. The name of the claim,

c. The date of location,

d. The legal description of the land claimed.

**G.** Requirements for completion of Type B mineral location. Failure to comply with the requirements in (D), (E) and (F) above in the time and place specified shall be abandonment of the claim and all right and claim of the discoverer and locator shall be forfeited.

**H.** Proof of valuable mineral deposit. The locator of a Type B mineral claim shall, within 30 days after the time of location, submit to the Commissioner, in a form acceptable to the Commissioner, the locator's evidence for proof of a valuable mineral deposit within the boundaries of the claim. Final determination as to such proof shall be made by the Commissioner from the evidence submitted or by any other means at his disposal.

**I.** Right of Type B locator to lease of claim. The locator of a Type B mining claim, having fulfilled the requirements as provided by these rules, shall have a better right to a mineral lease of his claim than that held by a subsequent locator.

**J.** Application for lease of Type B mineral claim

1. The locator of a Type B mineral claim may apply to the Department for a lease of his claim at any time within 90 days after location of the claim, provided: that a properly certified copy of the recorded location notice has been filed with the Commissioner. The lease application, in such form as the Commissioner may prescribe, shall be accompanied by:

a. Advance annual rental of $15.00 per claim.

b. A plat, to scale, accurately showing location of the claim properly tied in to known U.S. Public Survey corner monuments to properly identify the land claimed as a safeguard for the protection of the applicant.

c. A reasonably accurate drawing showing the proposed route of ingress and egress over other state land concerned.

2. Ordinarily, both the application to lease, and the lease, shall be on the basis of one application per claim and one lease per claim. However,

a. The Commissioner may permit the acceptance of applications embracing more than one claim, provided the claims are contiguous, and further provided, that prior arrangement for such consolidation has been made and approval had; and,

b. The Commissioner may permit or cause consolidation of claims for lease purposes to the extent consistent with required Departmental administrative procedures.

Any consolidation thus effected shall not alter the provisions of subsection (A) above.

**Historical Note**

Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1804 renumbered from Section R12-5-704 (Supp. 93-3).

**R12-5-1805. Lease for Mineral Claim**

**A.** Term of lease. Every mineral lease of state land shall be for a term of 20 years.

**B.** Lessee's right of possession and enjoyment. Every mineral lease shall confer the right:

1. To extract and ship minerals from the claim located within planes drawn vertically downward through the exterior boundary lines thereof, provided:

a. That in case of each lease of a claim located pursuant to the provisions of subsection (C) of these rules and regulations (Type A claim), the lease shall confer extralateral rights, in the discovery vein only, as follows:

Exclusive right of possession and enjoyment of the vein, lode, or ledge throughout its entire

depth, the top or apex of which lies inside the surface lines of the claim extended downward vertically, although such veins, lodes or ledges may so far depart from a perpendicular in their course downward as to extend outside the vertical side lines of such surface locations. But the right of possession to such outside parts of such veins or ledges shall be confined to such portions thereof as lie between vertical planes drawn downward as above described, through the end lines of the location, so continued in their own direction that such planes will intersect such exterior parts of such veins or ledges. Nothing in this paragraph shall authorize the locator or possessor of a vein or lode which extends in its downward course beyond the vertical lines of his claim to enter upon the surface of a claim owned or possessed by another.

2. To use as much of the surface as required for purposes incident to mining.
3. Of ingress to and egress from other state lands, whether or not leased for purposes other than mining.
   a. Proposed routes of ingress and egress over state lands, preferably reflecting agreement on the part of the lessees concerned, shall be subject to final approval by the Commissioner. Construction of roadways shall not be initiated by the mineral claimant or lessee until such approval is had.

**C.** Provisions of mineral lease

1. Every mineral lease of state lands shall provide for:
   a. The annual performance of not less than $100.00 worth of labor or of improvements made upon each claim or group of contiguous claims in common ownership. The annual expenditure shall become due and shall be performed during the year commencing at the expiration of one year from the date of location at 12:00 o'clock meridian and during each year thereafter.
      i. The term "labor" shall include, without being limited to, geological, geochemical and geophysical surveys conducted by qualified experts and verified by a detailed report filed with the Commissioner which sets forth fully
         (1) the location of the work performed in relation to the point of discovery and boundaries of the claim,
         (2) the nature, extent and cost thereof,
         (3) the basic findings therefrom, and
         (4) the name, address, and professional background of the persons conducting the work.

      Such surveys, however, may not be applied as labor for more than two consecutive years or for a total of more than five years on any one mining claim, and each such survey shall be non-repetitive of any previous survey of the same claim.
      ii. Improvements mentioned in (A)(1) above shall be limited to those necessary and incident to mining or which develop, or tend to develop, mineral.
      iii. Proof of annual labor on each claim shall be filed with the Commissioner, in such form as the Commissioner may prescribe, within 90 days after expiration of the period provided for its performance.
   b. The fencing of all shafts, prospect holes, adits, tunnels and other dangerous mine workings for the protection of livestock.
   c. The construction of necessary improvements and installation of necessary machinery and equipment with the right to remove it upon expiration, termination or abandonment of the lease, if all the monies owing to the state under the terms of the lease have been paid.
   d. The cutting and use of timber and stone upon the claim, not otherwise appropriated, for fuel, construction of necessary improvements, or for drains, roadways, tramways, supports, or other necessary purposes.
   e. The right of the lessee and his assigns to transfer the lease.
   f. Termination of the lease by the Commissioner upon written notice specifically setting forth the default for which forfeiture is declared, and preserving the right of the lessee to cure the default within a period of not less than 30 days.

      Notices of termination shall be mailed to the address of record of the lessee. Such notice shall set forth the default and inform the lessee of the time and place he may appear before the Commissioner to show cause why the lease should be restored to good standing.
   g. Termination of the lease by the lessee at any time during its term by giving the Commissioner 30 days' notice of termination in writing; provided, the lessee is not delinquent in the payment of rent or royalty to the date of termination.

**D.** Lease rental. The rental for a lease of a mineral claim on state lands shall be $15.00 per annum, payable in advance at the time of application for lease and at the beginning of each yearly period thereafter.

**E.** Royalty

1. Every mineral lease of state land shall provide for payment to the state by the lessee of a royalty of five percent of the net value of the minerals produced from the claim. The net value shall be deemed to be the gross value after processing, where processing is necessary for commercial use, less the actual cost of transportation from the place of production to the place of processing, less costs of processing and taxes levied and paid upon the production thereof. In case of minerals not processed for commercial use, the net value shall be the gross proceeds, or gross value, at the place of sale or use, less the actual cost of transportation from the place of production to the place of sale or use, less taxes, if any, levied and paid upon the production thereof.
2. In the case of limestone, silica, shale, and clay manufactured into building materials, the royalty shall be 3¢ per gross short ton of material removed. The 3¢ per ton royalty shall be based upon the average regional wholesale price of the building material so manufactured over the 12-month period immediately preceding June 14, 1958. The royalty shall be adjusted at the end of each five-year period thereafter in direct proportion to the decrease or increase in the five-year average of the average yearly regional prices for such building materials over the preceding five-year period, providing the decrease or increase amounts to ten percent or more of the previous base price.

3. In case of sand, rock and gravel to be used in the construction of roads, buildings or other structures, the royalty shall be 5¢ per cubic yard.
   a. As used as a basis of classification for royalty purposes, the word "rock" means the granular material coarser than gravel, and usually associated with natural deposits of sand and gravel.
4. The minimum rental paid for each year shall be credited upon royalties which may become due during the year.

**F.** Assignment of lease. The lessee of each mineral claim, if not in default of rent or royalty, and who has kept and performed all the conditions of his lease, may with the written approval of the Commissioner assign his lease. Application for assignment and assignments will be in such form as the Commissioner may require.

**G.** Renewal. Upon application to the Commissioner, not less than 30 nor more than 60 days prior to the expiration of the lease, the lessee of mineral lands, if he is not delinquent in the payment of rental or royalty on the date of expiration of the lease, shall have a preferred right to renew the lease bearing even date with the expiration of the old lease for a term of 20 years.

**H.** Sub-leases. No sub-lease shall be valid without the written permission of the Department.

**I.** Lease, reserved mineral interest; bond
1. Each mineral lease of the state's reserved mineral interest, resulting from sale of state land, shall contain such special conditions and terms as are necessary to the protection of the pertinent patentee or contract purchaser of state lands, or their successors in interest and the state of Arizona, against damage to lands, livestock, water, crops or other tangible improvements on lands held by such patentee or contract purchaser and suffered by the reason of the use or occupation of such land by the lessee.
   a. Lease applicant will be required to execute a bond in a reasonable principal amount, conditioned upon payment for such damage.
   b. Failure by lease applicant to post bond within 30 days after notice of such requirement has been served by the Department shall be deemed to constitute forfeiture of right to the lease.

**Historical Note**
Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-1805 renumbered from Section R12-5-705 (Supp. 93-3).

**R12-5-1806. Records and Reports**

**A.** Annual lease report. An annual report shall be submitted by the lessee of each mineral claim showing any and all work performed, improvements made, the cost thereof, and such other information as the Commissioner may require. The report, covering the mining operation in general, shall be filed with the Commissioner within 90 days after expiration of the period provided for the performance of annual labor, shall be incorporated with the report of that labor and shall be in such form as the Commissioner may prescribe.

**B.** Monthly production report. A monthly report of production shall be submitted by the lessee of each mineral claim within 15 days after the end of the month in which production is first had and before the 15th of each succeeding month for the month immediately preceding, unless otherwise ordered by the Commissioner. Any negative report subsequent to the initial production report shall be submitted unless waived by the Commissioner. The report shall be in such form as the Commissioner may prescribe and shall contain such information as the Commissioner may require, including, but not limited to, information regarding amounts of mineral extracted, use, or sold, the costs of shipping and processing, and the monetary returns therefrom.

**C.** Records. Each lessee of a mineral claim shall make and keep appropriate books and records covering the mining, shipping, processing and selling of mineral from the claim. The Commissioner or his representative shall have the right at all times during the existence of each lease of a mineral claim, and for six months thereafter, to make such reasonable examination of such books, records or other material as may be necessary to obtain information desired.

**Historical Note**
Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-1806 renumbered from Section R12-5-706 (Supp. 93-3).

**R12-5-1807. Relating to Mineral Reservations**

**A.** Definitions. Unless the context otherwise requires:
1. "Commissioner" means the State Land Commissioner.
2. "Department" means the State Land Department.
3. "Reserved minerals" means those minerals, hydrocarbons and other substances as defined in A.R.S. § 37-231, subsection (E).

**B.** Scope and authority. These rules and regulations are for the protection of the patentee or contract purchaser of state lands, sold under the authority granted by A.R.S. § 37-231, subsection (E), or their successors in interest, and the state of Arizona, against damage to the lands, livestock, water, crops, or other tangible improvements on lands held by such patentee or contract purchaser, and suffered by reason of the use or occupation of such lands by lessees or permittees engaged in mining and oil and gas exploration and development under leases or permits executed by the Department.

**C.** Nature of mineral reservation. In accordance with the provisions of A.R.S. § 37-231, wherein the state of Arizona reserves and retains all oil, gas, other hydrocarbon substances, helium or other substances of a gaseous nature, coal, metals, minerals, fossils, fertilizer of every name and description, together with all uranium, thorium, or any other material determined to be peculiarly essential to the production of fissionable materials, and the exclusive right thereto, on, in, or under such land regardless of any sale of its lands and the subsequent issuance of any instrument conveying title thereto, the State Land Department, for, and on behalf of the state of Arizona, at the same time reserves the right to sever and ship the reserved minerals therefrom; at the same time recognizing its responsibility to properly provide for the protection of the purchaser against damage to his lands and certain improvements on the lands held by him as provided by law.

**D.** Surface and subsurface use. A lessee or permittee engaged in mining and oil and gas exploration and development under leases or permits executed by the Department shall have the right to reasonable use of so much of the surface or subsurface of the lands of a patentee or contract purchaser as may be necessary for the conduct of operations to explore for, sever and remove the reserved minerals under such leases or permits, provided that the Commissioner in his discretion may require a lessee or permittee to, first, secure the written consent or waiver of the patentee or contract purchaser; or, second, pay to the patentee or contract purchaser the damages to the lands, livestock, water, crops, or other tangible improvements under agreement; or, third, in lieu of either of the foregoing provisions, post with the Department prior to his entry upon the lands, a cash deposit or surety bond, in an amount to be fixed by the Commissioner, conditioned upon payment to the patentee or contract purchaser for all such damage caused by lessee or permittee.

**Historical Note**
Original rule, Art. VI, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1807 renumbered from Section R12-5-707 (Supp. 93-3).

## ARTICLE 19. PROSPECTING PERMITS

**R12-5-1901. Definitions**

**A.** "Commissioner" means State Land Commissioner.

**B.** "Date of issuance of permit" means the 15th day after approval of the designated land by the Commissioner.

**C.** "Department" means State Land Department.

**D.** "Exploration" means activity conducted upon the state land covered by an exploration permit to determine the existence or nonexistence of a valuable mineral deposit, including but not limited to geological, geochemical or geophysical surveys conducted by qualified experts, and drilling, sampling and excavation, together with the costs of assay and metallurgical testing of samples from such land.

**E.** "Geochemical surveys" means surveys on the ground for mineral deposits by the proper application of the principles and techniques of the science of chemistry as they relate to the search for and discovery of mineral deposits.

**F.** "Geological surveys" means surveys on the ground for mineral deposits by the proper application of the principles and techniques of the science of geology as they relate to the search for and discovery of mineral deposits.

**G.** "Geophysical surveys" means surveys on the ground for mineral deposits through the employment of generally recognized equipment and methods for measuring physical differences between rock types or discontinuities in geological formations.

**H.** "Mineral" means all natural inorganic substances that may be extracted from the earth and includes mineral compounds and aggregates, natural building stone, saline deposits, and such organic substances as coal and guano but does not include petroleum and related hydrocarbon gases or other natural gases.

**I.** "Qualified expert" means an individual qualified by education or experience to conduct geological, geochemical, or geophysical surveys, as the case may be.

**Historical Note**
Original rule, Art. VI-A, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1901 renumbered from Section R12-5-731 (Supp. 93-3).

**R12-5-1902. Miscellaneous Rules**

**A.** Scope. These rules and regulations are general rules implementing Article 4, Chapter 2, Title 27, Arizona Revised Statutes, Prospecting Permits and Mineral Leases, and shall prevail over and supersede any existing policy or procedure to the extent that they are in conflict therewith.

**B.** State lands subject to permit. Any state-owned land may be brought under permit except those lands under state lease for mineral commercial or homesite purposes and those lands being specifically used or controlled by state institutions.

**C.** Fractions and irregular tracts. For all purposes necessary to the administration of Article 4, Chapter 2, Title 27, Arizona Revised Statutes, each fractional tract of less than 20 acres shall be considered by the Department as representing a rectangular subdivision of 20 acres.

Fractional remnants resulting from closing side lottage of township surveys shall be considered to be physically located nearest the closing side or sides of such surveys.

Fractional remnants resulting from surveyed mineral claims or other interior segregations shall be portioned into such 20 acre tracts and fractional remnants as the Department deems most practicable for administration.

**Historical Note**
Original rule, Art. VI-A, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1902 renumbered from Section R12-5-732 (Supp. 93-3).

**R12-5-1903. Application for Permit**

**A.** Qualifications of applicant. Any citizen of the United States, partnership or association of citizens, or a corporation organized under the laws of the United States or any state or territory thereof, and authorized to transact business in the state, may apply to the Commissioner for a mineral exploration permit on state land.

**B.** Area covered by permit application. Separate application shall be made for each mineral exploration permit. A permit may include one or more of the rectangular subdivisions of 20 acres, more or less, or lots of state land in any one section of the public land surveys.

**C.** Information to be furnished by the applicant

1. The application for permit shall be in such form as the Commissioner may prescribe, shall be in writing, signed by the applicant or an authorized agent or attorney for the applicant, and shall contain the following information:
   a. Name and address of applicant.
   b. Statement whether applicant is an individual, partnership or corporation.
   c. Statement of citizenship.
   d. If a corporation:
      i. Name.
      ii. State of incorporation.
      iii. Arizona business address.
      iv. Affirmation of authorization to do business in Arizona.
   e. Age and marital status.
   f. Description according to the public land survey of the land for which application is being made.
   g. Location of mineral locations, claims or leases on the land under application.
   h. Location of abandoned underground or other major workings on the land under application.
   i. Location of proposed roadways within the area under application and of proposed of ingress and egress over other state land concerned.
   j. Location of improvements or crops on land under application, or on land over which proposed routes of ingress and egress pass. (Information required in (g), (h) and (i) above, shall be conveyed by means of a reasonably accurate plat, or drawing, accompanying the application form.)
2. This rule shall not be taken or construed to limit or restrict the authority of the Commissioner to require the furnishing by the applicant of such additional information as may appear to him to be necessary or desirable, either generally or specifically, for the proper administration of the law governing prospecting permits.

**D.** Filing application for permit; fee; time of filing

1. Each application filed with the Department shall be accompanied by payment to the Department of a failing fee of $15.00.
2. Each application so filed that meets the requirements of (A), (B) and (C)(1) above shall be stamped by the Department with the time and date it is filed with the Department and, upon being so stamped, shall have a priority over any other application for a permit involving the same state land which may be filed with the Department subsequent to such time and date.
   a. Each application filed by U.S. Mail shall be considered to have been filed in the Department at the time

and date it is delivered to the mail room of the Department, provided the requirements of (A), (B) and (C)(1) have been met.

b. When two or more applications are delivered to the mail room of the Department in the same mail, the applications shall be deemed to have been simultaneously filed.

3. Each application not meeting the requirements of (A), (B) and (C)(1) above shall be rejected by the Department.

**E.** Withdrawal from mineral location of lands under application. The open state land involved in a filed and time-stamped application for permit shall be deemed withdrawn from mineral location at the time the application is stamped and shall remain so withdrawn so long as the application is pending.

**F.** Adjudication of rights; notice to applicant; issue of permit

1. Not less than 30 days, nor more than 45 days from the filing of the application with the Department, provided there is no prior application for a mineral exploration permit involving the same state land then pending before the Department, or if such prior application is then pending but is subsequently cancelled, not more than 15 days after it is cancelled, the Department shall mail to the applicant, by registered or certified mail at the address shown on the application, a written notice designating:
   a. The state land described in the application which, at the time the application was filed with the Department, was open to entry and location as a mineral claim or claims upon discovery of a valuable mineral deposit thereon,
   b. The amount of rental required to be paid for the mineral exploration permit, and
   c. Whether a bond will be required as a condition to issuance of such permit.
2. If, within 15 days after the mailing of such notice, the applicant shall pay to the Department as rental for the permit, the amount of $2.00 per acre for each acre of state land designated in the notice and shall file with the Department the bond, if any, required as a condition to issuance, the Commissioner shall issue to the applicant a mineral exploration permit for the state land designated in the notice.

**G.** Default by applicant; cancellation of application. Upon failure of the applicant for a mineral exploration permit to make the payment or furnish the required bond within the period of 15 days, as provided in (F) above, the application shall be deemed cancelled, of no further effect and the filing fee forfeited.

**H.** Simultaneous filings; conflicts; adjudication of priority

1. In the event it is determined by the Department that two or more applications for a mineral exploration permit have been filed at the same time, as indicated by the time-stamp, and that the applications include one or more rectangular subdivisions of 20 acres, more or less, or lots of state land which are identical, a conflict of priority shall exist as to such identical land.
2. Resolution of conflicts of priority shall be by drawing held by the Department not less than ten, nor more than 20 days after the simultaneous filing. Ample notice by registered mail of conflict and drawing shall be given each applicant involved. The drawing shall be conducted in such a manner as to resolve the order of priority of filing between or among the simultaneously filed applications, and suitable notice of the determined order of priority shall be given to each such applicant by the Department.

**I.** Right of applicant to use of land. The filing of an application for a mineral exploration permit shall not confer upon the applicant any greater right to use of the land under application than that held before such filing.

**Historical Note**

Original rule, Art. VI-A, Subchapter B, Ch. II (Supp. 76-4). Emergency amendment filed September 26, 1990, adopted effective September 27, 1990, pursuant to A.R.S. 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Section R12-5-1903 renumbered from Section R12-5-733 (Supp. 93-3).

**R12-5-1904. Terms and Conditions of Mineral Exploration Permit**

**A.** Rights of permittee; terms and conditions

1. Every mineral exploration permit shall be for a term of one year from the date of issuance, subject to renewals as provided by law and these rules and regulations, for an aggregate of not to exceed five years from such date, and shall give to the permittee the rights, subject to the terms and conditions as follows:
   a. During the period the permit is in force and effect, the permittee shall have the exclusive right to explore for minerals within the state land covered by the permit, and to apply for and obtain a mineral lease or leases to the land.
   b. The permittee shall have those surface rights necessary for the prospecting and exploration for mineral on the state land covered by the permit, but may remove from the land only that amount of mineral required by the permittee for sampling, assay and metallurgical testing purposes.
   c. The permittee shall have the right of ingress to and egress from the land covered by the permit across other state lands but only along routes first approved by the Commissioner.

**B.** Liability of permittee for damage. The permittee shall be liable to and shall compensate the owner and lessee of the surface of the state land covered by the permit, or across which the permittee exercises the right of ingress and egress, for any loss to such owner or lessee from damage, or destruction caused by the permittee, his or its agents or employees, to grasses, forage, crops or improvements upon such state land.

**C.** Annual expenditure for exploration; proof

1. The permit shall terminate automatically at the end of any annual period from and after the date of issuance unless during such annual period the permittee shall have:
   a. Expended in exploration for valuable mineral deposits on the state land covered by the permit not less than the following amounts for each acre covered by the permit at the commencement of such annual period:
      i. For the first two periods -- $10.00.
      ii. For the last three periods -- $20.00.
   b. Submitted to the Department an affidavit showing the expenditures for exploration made in (1) above.
   c. Submitted such substantiating data as the Commissioner may deem necessary regarding the amounts so expended.

**D.** Renewal; rental

1. The permittee may, prior to the expiration of each of the first four annual periods the permit is in effect, file application with the Department for renewal of the permit.
   a. The application for renewal shall be on a form provided by the Commissioner and shall be accompanied by proof of annual expenditure for the current year and rental for the ensuing year in the amounts

and manner as prescribed by law and these rules and regulations.

2. Rentals shall be payable at the time and in the amount as follows:
   a. Prior to issuance of the permit, $2.00 per acre for each acre designated by the Department to come under the permit.
   b. Prior to the beginning of the third year and of each subsequent year, for each acre to be renewed for the third year and for each subsequent year, $1.00.
3. Upon application for renewal, properly made and supported, the Commissioner shall issue a renewal of the permit for the ensuing annual period.

**E.** Relinquishment of acreage by permittee
1. Prior to the termination of any annual period of the permit, the permittee may release from the permit the acreage covered thereby and contained within one or more of the rectangular subdivisions of 20 acres, more or less, or lots, according to the public land survey.
2. Notification of such relinquishment shall be in writing on a form provided by the Commissioner and shall be time-stamped by the Department with the time and date it is filed with the Department.
   a. The acreage so released shall be restored to entry and subject to location of a mineral claim or claims immediately after the time and date of the termination of that annual period of the permit within which the release is filed with the Department.

**F.** Assignment
1. Any mineral exploration permit issued may be assigned in whole or in part by the permittee, but such an assignment shall not become effective unless and until application therefore is filed with the Department and such application is approved by the Commissioner. The assignee shall succeed to all of the rights and shall be subject to the obligations of the assignor of the mineral exploration permit.
   a. Application to assign and assignment shall be on a form provided by the Commissioner.

**G.** Restoration of surface. Upon any partial or total relinquishment, or the cancellation or expiration of the permit other than by lease issuance, the permittee shall fill any holes, ditches or other excavations as may be required by the Commissioner, and so far as reasonably possible, restore the surface to its former condition.

**H.** Bond
1. The Commissioner may require an applicant for a permit to file a surety bond with the Commissioner as a condition of permit issuance. Such bond shall be in the amount, from and with surety approved by the Commissioner and shall be conditioned upon the prompt payment to the owner and lessee of the surface of the state land to be covered by the permit, or across which the permittee exercises the right of ingress and egress, for any loss to such owner or lessee from damage, or destruction caused by the permittee, his or its agents or employees to grasses, forage, crops and improvements upon such state land.
2. The Commissioner may also require the permittee to furnish bond, in a reasonable amount, to be fixed by the Commissioner, conditioned that the permittee will guarantee restoration of the surface of the land described in the permit to its former condition upon any partial or total relinquishment of such lands, or the cancellation or expiration of the permit other than by issuance of a mineral lease.
3. Assignment of any or all of the permit will not relieve the assignor of his obligation as principal under the bond. Release of bond as to the assigned acreage may be effected through the posting of a replacement bond by the assignee for the assigned acreage but only upon approval by the Commissioner and subsequent notification of release by the Commissioner, in writing, to the principal and surety.
4. The Commissioner, in his discretion, may release the bond or reduce or increase the principal amount of the bond.
5. Immediately after determination by the Commissioner that full discharge of the conditions of the obligation on any bond has been effected, or that issuance of a mineral lease or leases has obviated further need for maintaining the bond, he will, in writing, notify the principal and sureties held on the bond so that the bond may be formally terminated.
6. Surety on the bond shall have the right to cancel the bond and be relieved of further liability, after the period of notice, by giving 30 days' notice to the Department of its desire to so cancel.
   a. Upon receipt of such notification, the Department will immediately notify the permittee by certified mail of the impending action by surety.
   b. Failure by the permittee to post a replacement bond before the expiration of the 30 days mentioned above, shall constitute default by the permittee and cause for cancellation of the permit.

**I.** Permit, reserved mineral interest; special conditions
1. Each prospecting permit of the state's reserved mineral interest, resulting from sale of state lands, shall contain such special conditions and terms as are necessary to the protection of the pertinent patentee or contract purchaser of state lands, or their successors in interest and the state of Arizona, against damage to lands, livestock, water, crops or other tangible improvements on lands held by such patentee or contract purchaser and suffered by the reason of the use or occupation of such land by the permittee.
   a. Permit applicant will be required to execute a bond in a reasonable principal amount, conditioned upon payment for such damage.
   b. Failure by permit applicant to post bond within 15 days after notice of such requirement has been served by the Department shall be deemed to constitute forfeiture of right to the permit.

**Historical Note**

Original rule, Art. VI-A, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-1904 renumbered from Section R12-5-734 (Supp. 93-3).

**R12-5-1905. Conversion of Permitted Acreage to Mineral Lease**

Application for lease.
1. Following discovery of a valuable mineral deposit upon the state land covered by a mineral exploration permit with a rectangular subdivision of 20 acres, more or less, or lot of the public land survey, the permittee may apply to the Commissioner for a mineral lease upon state land so contained.
   a. For the purpose of the application and any mineral lease issued pursuant to such application, such rectangular subdivision or lot shall constitute a mineral claim without extra-lateral rights and shall be

deemed to have been located as of the date of filing the application for mineral lease.

2. The application for mineral lease shall be on a form provided by the Commissioner and shall be accompanied by:
   a. Lease application fee of $25.00 per lease.
   b. Advance annual rental of $15.00 per claim.
   c. A plat, to scale, accurately showing location of the claim properly tied in to known U.S. Public Survey corner monuments to properly identify the land claimed.
   d. A reasonably accurate drawing showing the proposed route of ingress and egress over other state land concerned.
   e. Evidence, in a form acceptable to the Commissioner, constituting the applicant's proof of a valuable mineral deposit within the bounds of the claim. Final determination as to such proof shall be made by the Commissioner from the evidence submitted or by any other means at his disposal.
3. Ordinarily, both the application to lease, and the lease, shall be on the basis of one application per claim and one lease per claim. However,
   a. The Commissioner may permit the acceptance of applications embracing more than one claim provided the claims are contiguous and further provided, that prior arrangement for such consolidation has been made and approval had; and
   b. The Commissioner may permit or cause consolidation of claims for lease purposes to the extent consistent with required Departmental administrative procedures. Any consolidation thus effected shall not alter the provisions of paragraph (2) above.
4. From and after the date of issuance of a mineral lease, the mineral claim or claims covered by such mineral lease shall be deemed to be excluded from the prospecting permit.

**Historical Note**

Original rule, Art. VI-A, Subchapter B, Ch. II (Supp. 76-4). Emergency amendment filed September 26, 1990, adopted effective September 27, 1990, pursuant to A.R.S. 41-1026, valid for only 90 days (Supp. 90-3). Emergency expired. Section R12-5-1905 renumbered from Section R12-5-735 (Supp. 93-3).

## ARTICLE 20. COMMON MINERAL MATERIALS AND NATURAL PRODUCTS

### R12-5-2001. Definitions

**A.** "Common mineral materials" includes cinders, sand, gravel and associated rock, fill-dirt, common clay, disintegrated granite, boulders and loose float rock, waste rock and materials of similar occurrence commonly used as aggregate road material, rip-rap, ballast, borrow, fill, for general construction and for similar purposes.

**B.** "Natural products" includes all other products severed from the land including, but not limited to, water and plants but shall not include geothermal resources and those substances subject to the mining prospecting permit and leasing laws of Arizona.

**C.** "Royalty" means the monetary consideration representing the true appraised value of the common mineral materials of natural products.

**D.** For the purposes of any common mineral materials sales agreement, unless otherwise stated, the following terms shall have these meanings.
1. "Ton" is 2,000 pounds.
2. A "cubic yard" is a measurement of material that will fill a container that measures 1 yard by 1 yard by 1 yard and when a cubic yard is to be converted to tons industry accepted measures of conversion will be used.
3. "Annual production" is the number of tons of material that the Department determines is a reasonable amount to be extracted from the site in any 12-month period.
4. "Unit royalty rate" is the amount of money to be paid by the buyer to the Department for each ton of common mineral materials extracted.

**Historical Note**

Former Section R12-5-771 repealed as an emergency effective October 31, 1977, new Section R12-5-771 adopted effective September 16, 1977 (Supp. 77-5). Former Section R12-5-771 repealed as an emergency now repealed, new Section adopted effective September 21, 1978 (Supp. 78-5). Section R12-5-2001 renumbered from Section R12-5-771 (Supp. 93-3).

### R12-5-2002. Miscellaneous Rules

**A.** Scope. These rules are promulgated pursuant to authority vested in the State Land Department by statute and provide for the disposition of common mineral products and natural products in conformance with the enabling Act and Arizona Constitution. These rules and regulations shall supersede any existing rules or procedures of the Department under this Chapter.

**B.** Application of rules. As applicable, these rules shall govern the sale of all common mineral materials and natural products.

**C.** State land subject to application to purchase. Any state-owned land containing deposits or accumulations of common mineral materials and natural products shall be subject to application for sale thereof it being understood that the state reserves the right to refuse to authorize the sale of common mineral materials or natural products on its lands.

**D.** Location prohibited. Common mineral materials and natural products are not subject to location as a claim, application for prospecting permit or to application for a mineral lease, as provided by Title 27, Chapter 2, Articles 3 and 4 of the Arizona Revised Statutes. The right to enter upon state land for the purpose of exploring and testing of common mineral materials is reserved by the Department.

**E.** Nature of agreement. A common mineral materials or natural products sales agreement is an agreement by virtue of which the holder may enter designated state trust lands and recover, extract, use, store, remove and dispose of the materials or natural products designated in the sales agreement, as set forth in R12-5-775(B), R12-5-778, and R12-5-779.

**F.** Area of activity. The agreement entitles the holder to pursue any permitted activity on or within the premises as determined by boundaries drawn vertically downward through the exterior boundaries of the premises.

**G.** Environmental protection. At any time during the course of the agreement, the Department may require the purchaser to employ new or other conservation measures in addition to any required at the time of purchase. Any such requirement shall not affect the royalty or minimum annual guarantee requirement.

**H.** Rehearings and appeals. The right to a rehearing or an appeal from an intermediate or final order of the Department, Commissioner or Board of Appeals from any action taken pursuant to this Article, shall be as authorized by the law pertaining to the conduct of the Department, Commissioner and Board of Appeals, the general rules pertaining to such rehearings and appeals and such right is neither enlarged nor diminished by this Article.

**Historical Note**
Former Section R12-5-772 repealed as an emergency effective October 31, 1977, new Section R12-5-772 adopted effective September 16, 1977 (Supp. 77-5). Former Section R12-5-772 repealed as an emergency now repealed, new Section adopted effective September 21, 1978 (Supp. 78-5). Section R12-5-2002 renumbered from Section R12-5-772 (Supp. 93-3).

**R12-5-2003. Application for Purchase**

**A.** Qualification of applicant. Any citizen, or one who has declared his intention to become a citizen, of the United States, partnership, or association of citizens, or a corporation organized under the laws of the United States or any state, or territory thereof, and authorized to transact business in the state, and any agency of the state of Arizona or any political subdivision thereof may apply to the Department to purchase common mineral materials or natural products.

**B.** Area covered by application. A separate application shall be made for each common mineral materials or other natural products sale that relates to land in a different section or to non-contiguous parcels within a section. The size of any area subject to sale shall be determined by the Department in order to further the best interests of the state, and may represent consolidated applications.

**C.** Information to be furnished by the applicant.

1. The application to purchase shall be in such form as the Commissioner may prescribe, shall be filed with the Department by the applicant or an authorized agent for the applicant, and shall contain the following information:
   a. Name and address of applicant.
   b. Statement whether applicant is an individual, partnership or corporation or agency of the state or political subdivision thereof.
   c. Statement of citizenship, when applicable.
   d. If a corporation:
      i. Name.
      ii. State of incorporation.
      iii. Arizona business address.
      iv. Affirmation of authorization to do business in Arizona.
   e. Age and marital status, when applicable.
   f. Description, according to the public land survey, of the land for which application is being made.
   g. Location of mineral claims or leases on the land under application.
   h. Location of abandoned mineral workings or common mineral materials pits on the land under application.
   i. Location of proposed roadways within the area under application and of proposed routes of ingress and egress over other state land.
   j. Location of improvements or crops on land under application or on land over which proposed routes of ingress and egress pass (information required in (g) through (j) herein shall be conveyed by means of a reasonably accurate plat or drawing accompanying the application form).
2. This rule shall not be taken or construed to limit or restrict the authority of the Commissioner to require the applicant to furnish such additional information, either generally or specifically, as the Commissioner may deem necessary for the proper administration of the law governing sales of common mineral materials or other natural products.

**D.** Filing application for sale. Each application filed with the Department shall be accompanied by the filing fee provided by law and an application for commercial lease of whatever portion, if any, of the lands covered by the sale application upon which the applicant intends to undertake related commercial activities, place permanent improvements or otherwise use the surface.

**Historical Note**
Former Section R12-5-773 repealed as an emergency effective October 31, 1977, new Section R12-5-773 adopted effective September 16, 1977 (Supp. 77-5). Former Section R12-5-773 repealed as an emergency now repealed, new Section adopted effective September 21, 1978 (Supp. 78-5). Section R12-5-2003 renumbered from Section R12-5-773 (Supp. 93-3).

**R12-5-2004. Exploration Permits**

Common mineral materials and natural products, exploration, permits.

1. Scope. Following receipt of an application to purchase, the Department may issue permits to any person to explore for common mineral materials or natural products which are subject to sale.
2. Issuance of permits. Such permits will be issued only for limited entry into designated areas for the purpose of exploring or testing for common mineral material or natural products.
3. Non-assignability of permits. Such permits are non-assignable and subject to control stipulations by the Department.
4. No reimbursable improvements will be authorized or recognized by the Department in connection with any activity pursuant to an exploration permit.
5. Filing an application for sale shall entitle an applicant to an exploration permit without payment of further fees; any other person wishing to explore must pay a sum equal to the application fee.
6. All related state land must be restored after exploration and before sale by the exploring person(s).

**Historical Note**
Former Section R12-5-774 repealed as an emergency effective October 31, 1977, new Section R12-5-774 adopted effective September 16, 1977 (Supp. 77-5). Former Section R12-5-774 repealed as an emergency now repealed, new Section adopted effective September 21, 1978 (Supp. 78-5). Section R12-5-2004 renumbered from Section R12-5-774 (Supp. 93-3).

**R12-5-2005. Use of Land**

**A.** Rights of applicant. Except as may be provided by an exploration permit duly issued pursuant to R12-5-774, the filing of an application for a common mineral material or other natural products sale shall not confer upon the applicant any greater right to the use of the land under application or to the common mineral materials or other natural products therein than were held by the applicant before filing.

**B.** Rights of Buyer. The Buyer shall have the right to use as much of the surface of the premises as is reasonably necessary for the extraction, severance, temporary storage, removal and disposition of the materials from the premises, including the right to wash, screen, crush, sort or otherwise mechanically process those materials, together with the right of ingress to and egress from the premises across other state lands along designated routes approved by the Department. The right herein granted shall be perfected by Buyer obtaining the commercial lease referred to in R12-5-773(D).

**C.** Use by other than Buyer; assignability of Buyer's rights. No one other than the employees or officers of the Buyer or those of an independent contractor engaged in the performance of a written contract with the Buyer shall have the right to enter upon the premises to perform any act permitted Buyer under the sales agreement. However, Buyer may assign its interest upon the prior written approval of the Department upon a form provided for such.

**D.** No reimbursable improvements shall be authorized or recognized by the Department no matter by whom or for what purpose constructed insofar as the Buyer of a common mineral materials or natural products agreement is concerned. The Buyer shall have 90 days following the expiration or termination of the agreement, provided Buyer has performed all acts to be performed by it to remove any improvements; further provided that such removal does not interfere with the land being returned to an acceptable condition. Otherwise, any such improvements shall be deemed abandoned to the trust. Nothing in this provision, however, shall interfere with any right to reimbursement for improvements which Buyer might have by virtue of its status as a lessee of the Department.

**Historical Note**

Former Section R12-5-775 repealed as an emergency effective October 31, 1977, new Section R12-5-775 adopted effective September 16, 1977 (Supp. 77-5). Former Section R12-5-775 repealed as an emergency now repealed, new Section adopted effective September 21, 1978 (Supp. 78-5). Section R12-5-2005 renumbered from Section R12-5-775 (Supp. 93-3).

**R12-5-2006. Notice and Conduct of Competitive Sales**

**A.** Nature
1. All sales of common mineral materials and natural products, except to governmental agencies, shall be by public auction.
2. Common mineral materials or natural products may be sold to governmental agencies without public auction on terms specified by the Commissioner, provided that the materials or products are sold at their true appraised value and that they are to be used for governmental purposes.

**B.** Sales notice. Public notice of sale at public auction for common mineral materials or natural products shall be published once each week for not less than ten successive weeks in a newspaper of general circulation published regularly at the state Capitol and in a newspaper of general circulation published regularly nearest the location of the interest to be sold and with the same formality as required for the sale of land.

**C.** Conduct of sales. A representative of the Department shall conduct the public auction in a manner as consistent as possible as that provided for sales of land. Specifically, bidding shall be conducted in the following manner:
1. Bidding shall be by voice bid but no bid will be considered or recorded which is not higher than the highest preceding bid, except the initial bid may be for the unit royalty rate established in the notice of sale.
2. No bid shall be accepted for less than the unit royalty rate established in the notice of sale and the Department reserves the right to reject any or all bids, if determined by it to be in the best interests of the state.
3. Before a final bid at public auction is accepted, bidder must present to the auctioneer the amount of money that represents the minimum required in the notice of sale. The successful bidder shall have an additional 30 days from the date of sale in which to pay such additional sums, post such bonds and complete whatever other requirements may be required. Failing to do so will result in the abandonment of such sums already paid to the Department as liquidated damages and the freeing of the Department to reconsider such other bidders as the proper recipient of the sales agreement.

**D.** Execution of agreement
1. Upon approval by the Department of the successful bid for a common mineral materials or other natural products sale, the Department, by mail, will tender the sales agreement to the Buyer for its signature and simultaneously will notify it of the bond coverage required by the Department as a condition of issuing the sales agreement and will further state the execution fee required by law.
   a. When the executed sales agreement is filed with the Department by the Buyer and the Buyer has posted the bond or bonds required as a condition of issuance of the agreement, and the agreement has been signed by the Commissioner, the agreement will be in full force and effect.
   b. The date of commencement of the agreement will be the date of sale.

**Historical Note**

Adopted effective September 16, 1977 (Supp. 77-5). Section R12-5-2006 renumbered from Section R12-5-776 (Supp. 93-3).

**R12-5-2007. Common Mineral Materials**

**A.** Material to be specified. Common mineral materials sales agreements will recite the material or materials covered by such agreements and the rights of Buyers will pertain only to such materials as specified in the agreement.
1. It is understood that flora will necessarily be distributed by Buyer's activities, but such disturbance shall be minimal and the Department may so direct Buyer's activities to assure such minimal disturbance.
2. Buyer shall not be entitled to keep, give, sell or otherwise dispose of any flora on the premises unless the agreement so provides, in which event such flora shall have been appraised by or for the Department and a separate price therefore set forth in the agreement.
3. This agreement shall confer the right on the Buyer to extract groundwater from the land area subject to the sale for the purposes stated in R12-5-772, subsection (E) and R12-5-775, subsection (B), and purposes incidental or related thereto which uses and purposes shall be set forth in the Notice of Sale and which shall have been a factor in the establishment of the minimum acceptable unit royalty rate however, groundwater may be separately noted for sale in which event the notice of sale shall specifically so provide.
4. The granting of a right to extract groundwater shall not constitute a representation or guarantee by the Department that there is any groundwater available at any level or any quality for extraction.
5. Any right to extract groundwater conferred hereby is subject to any and all limitations and provisions existing in law or regulation of any agency including any such applicable other regulation of this Department.
6. Nothing herein shall affect any right to the use of groundwater which buyer might otherwise possess by virtue of being a lessee of the Department or having otherwise acquired a groundwater permit through Public Auction Sale by the Department.

**B.** Advertising of sale. The advertising of sale of common mineral materials shall state the location by legal description of the tract or tracts on which the material is being offered, the kind of material, the term, the time and place of auction, the unit,

the minimum unit royalty rate, minimum annual production, total bid deposit required, bond requirements, the office where additional information may be obtained and such additional information as the Department may deem necessary.

1. When the materials to be sold on a basis other than the standard one set forth in these rules, the notice of sale shall so state in specific detail.

**C.** Appraisals. Common mineral materials to be sold will be appraised by the Department when the materials are in their undisturbed natural condition ("in situ") using acceptable appraisal standards. The appraisal will determine the minimum unit royalty rate and minimum annual production.

**D.** Annual royalty. Until any reappraisal goes into effect, the annual royalty shall be the higher of

1. The minimum annual royalty as determined by the bidding process as provided in R12-5-777(E),
2. The number of units of material extracted multiplied by the unit royalty rate.

   Upon reappraisal, (1) and (2) shall be adjusted to reflect the reappraisal.

   a. The minimum annual royalty payment shall be due and payable in advance on the anniversary of the agreement. Royalty for any material extracted, severed or disposed of in excess of the minimum annual production shall be due and payable in advance on the anniversary of the agreement. Royalty for any material extracted, severed or disposed of in excess of the minimum annual production shall be due and payable monthly within 30 days after billing by the State Land Department.
   b. Minimum annual royalty payments shall be applied as a credit to payment for materials for which payment must be made, provided, however, that monies so advanced and not credited against payments for materials shall become the sole property of the state upon termination or expiration of the agreement.
   c. For purposes of determining minimum annual royalty payment due in any particular year:
      i. Multiply the original minimum annual royalty by the number of years of the agreement;
      ii. Subtract the royalties thus far paid by (i);
      iii. Divide (ii) by the years remaining and that will give the minimum annual royalty for the year in question.
   d. In no event will the minimum royalty be less than 5% of the original minimum annual royalty.

**E.** Bids. Unless otherwise provided by the Commissioner and specifically published in the notice of sale, all bids shall be by the unit royalty rate.

1. In determining the minimum annual royalty, the Department shall multiply the unit royalty rate bid by the successful bidder times the minimum annual production which shall be determined solely by the Department and set forth in the notice of sale.

**F.** Reappraisals. The royalty rate established initially shall remain fixed for the first two years of the agreement. For each subsequent year the Department may reappraise in the following manner:

1. No later than 60 days before the end of any anniversary date, the Department may reappraise the material to determine the unit rate and/or the acceptable minimum annual royalty; that reappraisal shall be effective for the second year following the one in which the reappraisal is made.
2. The Department shall notify the Buyer within 30 days of the reappraisal and Buyer shall be obligated for payments based on such reappraisal for the second year following the one in which the reappraisal is made. If any proper appeal is taken by Buyer and not concluded before the effective date of the reappraisal, the prior royalty shall be paid, with any necessary adjustment being made immediately upon the conclusion of such appeal.
3. The Department is not obligated to reappraise in any particular year and its failure to do so merely means the last appraisal results shall remain in effect until a proper reappraisal is made.

**G.** Provisions of the agreement

1. Term
   a. The term of a common mineral material sales agreement shall not be for more than 20 years.
   b. The Department will set the term of each sales agreement in such manner as to best utilize the resources and provide an economically sound term compatible with the law, the best interest of the trust and of the state.
2. For contract administration and sales-related expenses, a charge of 2% will be added to the minimum annual royalty and to royalties paid for production in excess of minimum annual production.
3. The royalty provisions shall be set forth in the agreement.
4. All common mineral materials removed from the premises shall be measured by volume, weight or truck tally or a combination of these methods or any other form of measurement the Department determines to be to the best interest of the state.
5. Buyer's conduct on premises
   a. The Buyer will conduct its operations in a workmanlike manner at all times, to protect the premises and soils thereof and including, but not limited to:
      i. Keeping the premises free of all litter, junk or debris;
      ii. Taking precautions as necessary to protect the safety of persons or property upon the premises;
      iii. Complying with all flood control regulations which may be applicable to the premises;
      iv. Fencing all dangerous workings for the protection of humans and livestock;
      v. Complying with all other rules and regulations prescribed from time to time by the Department or any other agency having jurisdiction over the premises or the activities.
   b. Upon termination of the agreement, the Buyer will restore the surface of the premises to a reasonable condition in accordance with good mining practices, such restoration to include:
      i. The sloping of side banks of the excavation resulting from the operation to a grade of not more than one (1) foot vertical for each two (2) feet of horizontal distance, unless otherwise specified by the Department;
      ii. The backfilling into the excavation of all unused waste materials and overburden resulting from the operation, and the leveling of such backfill to a reasonably uniform depth on the floor excavation, unless otherwise specified by the Department;
      iii. The removal and restoration of the surface of any new haul roads constructed on state land by Buyer, which roads the Department does not elect to retain, any such election of retention to be made in writing.

c. The Buyer will indemnify, hold and save harmless, the state of Arizona, the Department and all of their officers and employees, against all loss, damage, liability, expense, costs and charges incident to or resulting in any way from use, condition or occupation of the premises.

6. Transfers
   a. The Buyer, with prior approval of the Commissioner, may assign the agreement.
   b. The application for assignment and the assignment and assumption of the agreement will be on such forms as the Department may prescribe.
   c. Assignment shall not relieve the Buyer from any duties under the agreement but the assignee shall succeed to all of the rights and be jointly and severally liable, along with the assignor, to all of the obligations existing under the agreement dating from its inception.
   d. No transfer of the Buyer's interest or any portion thereof is authorized except as specifically provided in these rules.
7. Termination of sales agreement
   a. Upon 30 days' written notice to Buyer, the Department may terminate the agreement for the failure or neglect of the Buyer to perform any of its provisions, including those specified by these rules. Failure to pay royalties when due is such a failure of performance.
   b. Notices of termination shall be mailed to the address of record at the Department of the Buyer. Such notice shall set forth the reason for the termination.
   c. Provided Buyer is not in default in any of the terms and conditions of the agreement, the Buyer shall have the right to terminate the agreement upon any annual anniversary date thereof by giving the Seller not less than 30 days' prior notice in writing of Buyer's intention to do so.
8. Upon termination or expiration of the agreement, Buyer shall have 90 days, provided it has fully performed under the agreement, to remove any stockpiled material on the premises. The Commissioner may, if the Buyer so requests in writing within ten days before the expiration of any such removal period, or extension thereof, grant a further extension not to exceed 60 days and provided that the cumulative removal period, along with extensions, shall not exceed 210 days. If the Buyer has not fully performed or fails to remove the stockpiled material within that specified time, such material will be deemed abandoned to the Trust. Any subsequent buyer of material on the portion of the premises on which stockpiled will succeed to its ownership and pay the Department the new Buyer's royalty rate therefor upon removal.
9. The agreement shall not provide for any renewal thereof.
10. Bonds
    a. The Commissioner may require the Buyer to post a cash deposit or surety bond to guarantee the performance of the sales agreement and the payment of all monies due the state under the sales agreement.
    b. Restoration and surface damage bond
       i. The Commissioner shall require the Buyer to furnish bond, in a reasonable amount, to be fixed by the Commissioner, conditioned that the Buyer will guarantee restoration of the surface of the land described in the sales agreement to a reasonable condition in accordance with good mining practices, upon termination of the sales agreement.
       ii. The Commissioner shall also require the Buyer to include in the above bond an amount set by the Department as a surety bond in the form, amount, and with surety approved by the Commissioner, conditioned upon prompt payment to the owner or lessee of the surface of state land covered by the common mineral materials sales agreement, or across which the common mineral materials Buyer exercises the right of ingress, for any loss to such owner or lessee for damage or destruction caused by the common mineral materials Buyer or Buyer's agents or employees, to grasses, forage, crops and improvements upon such land.
       iii. Assignment of the sales agreement will not relieve the assignor of his obligation as principal under the bond. Release of the assignor's obligation under the bond may be effected through the posting of a replacement bond by the assignee, but only after approval by the Commissioner in lieu of a replacement bond, the bonding company may furnish a bond rider form changing the name of principal.
       iv. The Commissioner, in his discretion reasonably exercised, may reduce or increase the principal amount of any bond.
       v. After determination by the Commissioner that full discharge of the conditions of the obligation under any bond has been effected, he will, in writing, notify the principal and surety held by the bond so that it may be formally terminated.
       vi. Surety on the bond shall have the right to cancel the bond and be relieved of future liability, but not previous liability after the period of notice, by giving 30 days' notice to the Buyer and the Department of its desire to so cancel. Failure by the Buyer to post a replacement bond before the expiration of the 30 days, mentioned next above, shall constitute a default by the Buyer and cause for cancellation of the sales agreement.
11. Records and reports
    a. A monthly report of production (either affirmative or negative) shall be submitted by the Buyer of each common mineral materials sales agreement within 15 days after the end of the month in which his sales agreement was issued, and by the 15th of each month thereafter.
    b. The report shall be in such form as the Commissioner shall prescribe and shall contain such information as the Commissioner shall require, including, but not limited to, the type, volumes, weights and classifications of the common mineral materials removed or disposed of.
    c. Each Buyer shall make and keep an accurate account of all operations, showing the sales, prices, dates, purchasers and the total amount of material disposed or removed from the subject premises.

**Historical Note**

Adopted effective September 16, 1977 (Supp. 77-5). Section R12-5-2007 renumbered from Section R12-5-777 (Supp. 93-3).

**R12-5-2008. Natural Products -- Groundwater**
When the law permits and the Department believes it consistent with the best interests of the state, groundwater may be sold at public auction in the same manner and subject to the same forms, insofar as possible, as are common mineral materials.

**Historical Note**
Adopted effective September 16, 1977 (Supp. 77-5). Section R12-5-2008 renumbered from Section R12-5-778 (Supp. 93-3).

**R12-5-2009. All Other Natural Products**
When the Department believes it consistent with the best interests of the state, natural products other than groundwater may be sold at public auction in the same manner and subject to the same terms, insofar as possible, as are common mineral materials.

**Historical Note**
Adopted effective September 16, 1977 (Supp. 77-5). Section R12-5-2009 renumbered from Section R12-5-779 (Supp. 93-3).

**ARTICLE 21. OIL AND GAS LEASES**

**R12-5-2101. Definitions**
In these rules and regulations, the following terms shall have the meaning herein given:

1. "Department" means the State Land Department.
2. "Lease" as used herein, shall mean an oil and gas lease issued pursuant to the provision of this Act.
3. "Lessee" means the holder of an oil and gas lease issued pursuant to this Act and shall also include any assignee of an original lessee.
4. "Surface lease" means a lease on the surface of any state land for grazing, agricultural, commercial, or homesite purposes.
5. "Surface lessee" means the holder of a lease on the surface of any state land for grazing, agricultural, commercial or homesite purposes.
6. "Oil and gas" and "oil or gas" when used herein shall be deemed to include "oil, gas and other hydrocarbon substances".
7. "Produced" when used herein shall be deemed to include the words "procured and produced".
8. "State lands" means any land or any interest therein owned or held in trust, or otherwise, by the state, including, but not limited to, leased school or university lands.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2101 renumbered from Section R12-5-781 (Supp. 93-3).

**R12-5-2102. Who May Lease for Oil and Gas -- Qualified Lessees**
Any person of the age of 21 years or over, a citizen of the United States, or one who has declared an intention to become a citizen of the United States, or any firm, association, or corporation which has complied with the laws of the state shall be qualified to lease state lands.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2102 renumbered from Section R12-5-782 (Supp. 93-3).

**R12-5-2103. Applications for Noncompetitive Oil and Gas Leases**
A noncompetitive oil and gas lease is one covering state lands not located within any known geological structure of a producing oil and gas field as determined and designated by the Department. Such determination and designations shall be made as provided in Section (3)(c) of Arizona Oil and Gas Leasing Act of 1951. A right of priority to a noncompetitive oil and gas lease shall be had by the first qualified applicant who shall file a proper application therefor in the office of the Department, together with payment of the required fees and advance rental. The application shall be on a form prescribed by the Department completely filled out and duly signed by the applicant. Any false or willfully incomplete statement will be considered misrepresentation and will be cause for rejection.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2103 renumbered from Section R12-5-783 (Supp. 93-3).

**R12-5-2104. Applications for Noncompetitive Leases -- Time for Filing**
Applications for noncompetitive oil and gas leases shall be received for filing in the office of the Department in Phoenix during the office hours of any business day. Except as hereinafter specifically provided, all such applications received, whether by U.S. Mail or by personal delivery over the counter, shall be immediately stamped with the date and time of filing. Each application filed by U.S. Mail shall be considered to have been filed in the Department at the time and date it is delivered to the mail room of the Department. The time of filing so indicated on each application shall evidence the priority of the first qualified applicant and the right to a lease which may be had thereby; subject, however, to the adjudication of conflicts which may arise by reason of applications simultaneously filed as hereinafter set forth.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2104 renumbered from Section R12-5-784 (Supp. 93-3).

**R12-5-2105. Simultaneous Filings -- Conflicts**
In the event it is determined that two or more applications for a lease have been filed at the same time as indicated by the time-stamp applied as set forth in rule 4, such applications shall be deemed to be simultaneous filings. In the event two or more simultaneously filed applications include any land which are identical, a conflict shall exist as to such lands. Adjudication of conflicts shall be in accordance with the provisions of rule 6 thereof.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2105 renumbered from Section R12-5-785 (Supp. 93-3).

**R12-5-2106. Department's Decisions -- Conflicts**
The Department will not issue any lease pursuant to an application unless the land is vacant, and then in accordance with the following procedure:

1. No conflict. Where there is no conflict, the Department shall issue a noncompetitive lease to the first qualified applicant.
2. Conflicts. Where there is a conflict, the Department shall provide for a drawing between the qualified applicants to determine which applicant shall be entitled to a lease. The Department shall give notice to the conflicting applicants by registered mail, fixing a date and hour on which a drawing will be held for the land in conflict, which date shall not be less than 10 days or more than 30 days from the date of said notice. The applicants may remove the conflict by amended application, which shall carry the same filing date as the original application, at any time prior to the date of the drawing. Rentals advanced applicable to the lands withdrawn shall be refunded to the

applicant. If, however, the conflict is not so removed, the drawing will be held and the lease, by the Department decision, will be awarded to the winner. The Department will then give notice of the results of said drawing to each applicant.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2106 renumbered from Section R12-5-786 (Supp. 93-3).

**R12-5-2107. Applications -- Refunds**

**A.** When an application for lease is rejected in its entirety, all monies paid by the applicant, except the filing fees, will be refunded, when rejected in part, the unused portion of the rental payment will be refunded.

**B.** An acceptable application may be withdrawn at any time prior to issuance of lease, but if withdrawn, the rentals and fees transmitted with said application will thereupon be forfeited to the state as penalty for failure to fulfill the obligations.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2107 renumbered from Section R12-5-787 (Supp. 93-3).

**R12-5-2108. Noncompetitive Lease Form**
Noncompetitive oil and gas leases shall be on a standard lease form prescribed by the Department. The current standard lease form is No. OG-10.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2108 renumbered from Section R12-5-788 (Supp. 93-3).

**R12-5-2109. Acreage Limitations**
Lands under a single lease shall be in as compact a body as possible, but may include non-contiguous lands within an area of six miles square if the maximum acreage of contiguous land is not available, but in no event to exceed the total of 2,560 acres. No person, association, or corporation shall take or hold at any one time noncompetitive oil or gas leases exceeding in the aggregate 15,360 acres, but any leases as to which the lessees interest becomes a signatory and a cooperative or unit plan for the development and operation shall be exempt from the acreage limitation.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2109 renumbered from Section R12-5-789 (Supp. 93-3).

**R12-5-2110. Withdrawals from Leasing**
The Department may refuse to lease any state lands for oil and gas when such lands are being used by the state or any state department for any state purpose. The Department may withdraw from leasing any specific area of land not located within any known geological structure of a producing oil or gas field where it appears that such withdrawal is in the interest of the state, provided no lands shall be withdrawn without the consent of a committee as provided in Section 3 (a) 11 of the Arizona Oil and Gas Leasing Act of 1951. Any lands so withdrawn may again be subject to leasing pursuant to these regulations, if approved by said committee.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2110 renumbered from Section R12-5-790 (Supp. 93-3).

**R12-5-2111. Competitive Leases -- Designation and Offer of Lands for Lease**
State lands which are located within a known geological structure of a producing oil or gas field shall be divided into tracts for leasing purposes. Each such tract shall contain not less than one-quarter section of land, and not more than two sections of land, provided that a tract containing less than one-quarter section of land may be leased if such tract is segregated from other state lands not then subject to oil and gas lease. All such tracts shall be in reasonably compact form and shall be offered for lease at a royalty of not less than 12 1/2%, to be specified in the call for sealed bids to the qualified person who offers the highest cash bonus by competitive sealed bids. Such lands shall be offered upon receipt of an application to lease from one or more qualified persons or when, in the opinion of the Department, there shall be a demand for the purchase of leases on such lands.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2111 renumbered from Section R12-5-791 (Supp. 93-3).

**R12-5-2112. Notice of Competitive Lease Offer**
Notice of the offer of lands for oil and gas lease shall be by publication in a newspaper of general circulation in the state of Arizona. Such notice shall be published twice and the last publication shall be not less than 15 days prior to the date fixed for the opening of bids. The notice shall be published at the expense of the state but the expenses of publication shall be charged to the person whose bid is accepted. A copy of the notice shall be posted in the office of the Department in Phoenix, Arizona, during the period of publication. Such notice shall set the day and hour at which bids will be opened in the office of the Department in Phoenix, Arizona, and full information shall be given as to how and when bids are to be submitted. On or before December 1st of each year, the Department shall designate by general order of the newspaper in which such publication shall be made during the following calendar year. The publication shall contain the description of the land proposed to be leased, the time when the bids will be received and opened, and shall set forth the form of lease which the successful bidder will be required to execute, either by attaching a form of lease in its entirety or by designating the form number of the lease on file with the Department, copies of which will be furnished to any person on request. The annual rental in such lease shall be specified in the amount of $1.00 per acre per year and such rental for each year shall be credited on royalty payments for that year.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2112 renumbered from Section R12-5-792 (Supp. 93-3).

**R12-5-2113. Qualifications of Successful Bidder**
Each person shall submit with his sealed bid the following: certified check for the amount bid by him and proof of citizenship as required in rule 2.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2113 renumbered from Section R12-5-793 (Supp. 93-3).

**R12-5-2114. Competitive Lease Form**
Competitive oil and gas leases shall be on a standard lease form prescribed by the Department. The current standard lease form is No. OG-12.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2114 renumbered from Section R12-5-794 (Supp. 93-3).

**R12-5-2115. Award of Lease**
Following the opening of the sealed bids, the Department, subject to its right to reject any or all bids, shall award the lease to the successful bidder. Notice of the Department's action shall be forthwith transmitted to the interested parties. The Department shall return forthwith all checks accompanying rejected bids. If the lease be awarded, two copies of the lease will be sent to the successful bidder, and he will be required within 30 days from receipt thereof to execute them, pay the first year's rental, the cost of publication, and the reasonable expenses of the sale. If a bidder, after having been awarded a lease, fails to execute it or otherwise comply with the applicable regulations, his deposit will be forfeited. If two or more tracts are awarded to any bidder where the acreage does not exceed more than two sections of land, such tracts may, if not otherwise prohibited by law be included in a single lease.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2115 renumbered from Section R12-5-795 (Supp. 93-3).

**R12-5-2116. Surface Use**
Oil and gas lessees shall have the right to use so much of the surface of the lands as may be reasonably necessary for the conduct of their operations under the leases. The lessee shall be liable for damage caused by it to the state's interest in the surface or to the interest of a surface lessee, if any, and may be required by the Department at any time to execute a bond in a reasonable principal amount conditioned upon payment for all such damage. If the lessee and a surface lessee cannot agree upon the amount of damages caused by lessee, such damages shall be appraised by the Department or its agent and appeal from the judgment of the Department may be taken as provided in Sections 11-210 and 11-211 of the Arizona Code of 1939.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2116 renumbered from Section R12-5-796 (Supp. 93-3).

**R12-5-2117. Conduct of Operations**
All lessees and operators shall comply with the Arizona Oil and Gas Conservation Act 1951 as now in effect or as hereafter amended, and all rules, regulations, and orders issued thereunder shall be applicable to the operations of state oil and gas lessees.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2117 renumbered from Section R12-5-797 (Supp. 93-3).

**R12-5-2118. Cooperative and Unit Agreements**
Commitment of leased state lands to cooperative or unit agreements shall be conditioned on the following procedure and requirements:

1. That there be submitted to the Department two copies of a plat showing the area to be unitized, together with such structural and geological information as will tend to support the delineation of the area. The information so furnished shall be held confidential until released by the applicant or applicants.
2. That there be submitted to the Department two preliminary drafts of the agreement for approval as to form. Where the amount of federal land predominates in any area, the standard form of unit agreement of the United States should be followed.
3. Upon determination by the Department that it is for the best interest of the state to commit leased state lands to a cooperative or unit agreement for the development and operation of an oil or gas pool, the Department shall thereafter finally join in and consent to such agreement when submitted for final approval.
4. A cooperative or unit agreement shall not affect the leasehold of any leased state lands lying outside of the unit area, and shall not be effective as to the leaseholds lying within the unit area unless the lessees thereof and the then approved operating interests shall subscribe to such an agreement.
5. The terms and conditions of leases covering state lands will be modified and changed to the extent necessary to conform the same to the terms and conditions of the agreement.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2118 renumbered from Section R12-5-798 (Supp. 93-3).

**R12-5-2119. Assignments**
A lessee may assign a lease as to all or part of the leased land or any interest in the leasehold rights to any person, firm, association, or corporation qualified to hold the same, provided that any assignment of a part of a lease shall cover not less than a quarter of a quarter of a section, or approximate equivalent thereof. If a lease is assigned as to a segregated portion of the land covered thereby, the rentals payable thereunder shall be apportionable as between the several leasehold owners ratably according to the surface area of each, and default in rental payment by one shall not affect the rights of other leasehold owners under the lease. Liability for the breach of any obligation under the lease shall rest exclusively upon the owner of the lease, or the portion thereof, who commits such breach. All assignments shall be on forms prescribed by the Department and shall be filed with the Department within 90 days from the date thereof by depositing a duplicate executed original or certified copy by a notary public. No such assignment will be accepted by the Department unless so filed. An assignment shall cover only one lease or a portion thereof. The Department shall retain in its files executed duplicate originals of all issued leases and all assignment deposited with it and all such leases and assignments shall be recorded in tract books for such purposes. All assignments deposited with the Department shall be accompanied by the prescribed fee.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2119 renumbered from Section R12-5-799 (Supp. 93-3).

**R12-5-2120. Surrender**
A lease or any part thereof, but not less than a quarter of a quarter section, or the approximate equivalent thereof, may be surrendered at any time by the record title holder thereof to the lessor upon payment to the Department of all amounts then due as to the lands so surrendered. No refund of any part of the cash consideration or rental theretofore paid shall be made to the lessee or record title holder upon any such surrender. Such surrender shall be made by depositing with the Department one copy of the instrument of surrender, together with the prescribed surrender fee and thereafter the lessee or record title holder shall incur no further liability under said lease as to the land so surrendered.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4).
Section R12-5-2120 renumbered from Section R12-5-800 (Supp. 93-3).

**R12-5-2121. Rental Notices**
The Department shall send rental notices to lessees at their address of record with the Department by mail at least 30 days prior to the date upon which such rental is due and no lessee shall be in default until the lessee or record title holder has been so notified.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2121 renumbered from Section R12-5-801 (Supp. 93-3).

**R12-5-2122. Monthly Statements**
Monthly statements of production and other statements required of the lessee under the lease shall be made in triplicate and shall be transmitted to the Department.

**Historical Note**
Original rule, Art. VII, Subchapter B, Ch. II (Supp. 76-4). Section R12-5-2122 renumbered from Section R12-5-802 (Supp. 93-3).

**ARTICLE 22. GEOTHERMAL RESOURCES**

**R12-5-2201. Definitions**
In these rules and regulations the following terms shall have the meaning herein given:

1. "Commission" means the Oil and Gas Conservation Commission.
2. "Completion" or "completed well" means a well that has produced or is capable of producing geothermal resources or has been determined to be a dry hole, temporarily abandoned or plugged and abandoned, or has been readied for other phases of exploitation.
3. "Department" means the State Land Department.
4. "Environment" means the sum total of all the external conditions which may act upon an organism or community, to influence its development or existence.
5. "Geothermal area" means the same general surface area which is underlain or reasonably appears to be underlain by one or more formations containing geothermal resources.
6. "Geothermal resources" means:
   a. All products of geothermal processes embracing indigenous steam, hot water and hot brines.
   b. Steam and other gases, hot water and hot brines resulting from water, other fluids or gas artificially introduced into geothermal formations.
   c. Heat or other associated energy found in geothermal formations, including any artificial stimulation or induction thereof.
   d. Any mineral or minerals, exclusive of fossil fuels and helium gas, which may be present in solution or in association with geothermal steam, water or brines.
7. "Lease" means a geothermal resources development lease issues for state lands pursuant to the provisions of this Article.
8. "Lessee" means the holder of a lease or any assignee of an original lease or part thereof.
9. "Operator" means any person drilling, maintaining, operating, pumping or in control of any well, and includes the owner, when any well is or has been or is about to be operated or under the direction of the owner.
10. "Owner" means and includes the operator when any well is operated or has been operated or is about to be operated by any person other than the owner.
11. "Person" means and includes any individual, firm, association, corporation or any other group or combination acting as a unit.
12. "Waste" means any physical waste including, but not limited to, underground waste resulting from the inefficient, excessive or improper use of dissipation of reservoir energy or resulting from the location, spacing, drilling, equipping, operation or production of a geothermal resources well in such a manner that reduces or tends to reduce the ultimate economic recovery of the geothermal resources within a reservoir, and surface waste resulting from the inefficient storage or utilization of geothermal resources and the location, spacing, drilling, equipping, operation or production of a geothermal resources well in such a manner that causes or tends to cause the unnecessary or excessive surface loss or destruction of geothermal resources obtained or released from the reservoir.
13. "Well" means any well drilled in search of geothermal resources or any development well on lands in areas proved to be underlain by one or more formations containing geothermal resources or reasonably presumed to contain geothermal resources or any well drilled for information purposes, or any producing well or reentered abandoned well used for the injection of fluids into the geothermal formation or disposition of fluids into non-geothermal formations, or any well drilled for the purpose of stimulating the heat of a formation or for the creation of heat in a formation by nuclear or any other form of energy.
14. "Known Geothermal Resource Area (KGRA)" means an area in which the geology, nearby discoveries, competitive interests, and other indicia would, in the opinion of the Department, engender a belief in the people who are experienced in the subject matter that the prospects for the extraction of geothermal resources are sufficient to warrant expenditures of money for that purpose.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-850 repealed, new Section R12-5-850 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2201 renumbered from Section R12-5-850 (Supp. 93-3).

**R12-5-2202. Who May Lease for Geothermal Resources -- Qualified Lessees**
Any person of the age of 18 years or over or any firm, association, or corporation which has complied with the laws of the state, shall be qualified to lease state lands.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-851 repealed, new Section R12-5-851 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2202 renumbered from Section R12-5-851 (Supp. 93-3).

**R12-5-2203. Applications -- Refunds**
**A.** When in the case of only one bidder and an application for lease is rejected in its entirety, all monies paid by the applicant, except the filing fees, will be refunded; when rejected in part, the unused portion of the rental payment and bonus bid will be refunded.
**B.** An acceptable application may be withdrawn at any time prior to issuance of lease, but if withdrawn, the rentals and fees transmitted with the application will thereupon be forfeited to the state as penalty for failure to fulfill the obligations.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-852 repealed, new Section R12-5-852 adopted effective March 14, 1979 (Supp. 79-2). Section

R12-5-2203 renumbered from Section R12-5-852 (Supp. 93-3).

**R12-5-2204. Terms of Lease**

**A.** If, after the expiration of the ten year primary term or the additional two-year period provided for in A.R.S. § 27-6710, this lease is maintained in force and effect by the production of geothermal resources in paying quantities and the production shall cease, this lease shall continue in force and effect provided lessee pays the rentals provided for in these rules and conducts operations on the lands with reasonable diligence for the purpose of restoring the paying production of geothermal resources from the lands. In the event paying production of geothermal resources from the lands is restored within one year from the date of cessation of production, this lease shall remain in full force and effect.

**B.** If geothermal resources in paying quantities are discovered on the lands covered by this lease or on lands joined therewith in a cooperative or pooled unit, while the lease is in full force and effect, but lessee is unable to produce any geothermal resources because of lack of transportation, processing or generating facilities, the lease shall be extended beyond the primary term of ten years from year to year, but not to exceed a period of three years, by payment of a shut-in geothermal resources royalty of $2.00 per acre per year, payable in advance annually on the anniversary date of the lease, and if the payment is made it will be considered geothermal resources are being procured and produced in paying quantities from the leased premises for such year.

**Historical Note**

No original number assigned (Supp. 76-4). Former Section R12-5-853 repealed, new Section R12-5-853 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2204 renumbered from Section R12-5-853 (Supp. 93-3).

**R12-5-2205. Lease of State Lands**

Notice of the offer of lands for geothermal resources lease and call for bids shall be by publication in a newspaper of general circulation in the state of Arizona. Each notice shall be published twice and the last publication shall be not less than 15 days prior to the date fixed for the opening of bids. The notice shall be published at the expense of the state, but the expenses of publication and other reasonable expenses of the sale shall be charged to and paid by the person whose bid is accepted. A copy of the notice shall be posted in the office of the Department in Phoenix, Arizona, during the period of publication. The notice shall set the day and hour at which bids will be opened in the office of the Department in Phoenix, Arizona, and full information shall be given as to how and when bids are to be submitted. On or before December 1st of each year, the Department shall designate by general order the newspaper in which said publication shall be made during the following calendar year. The publication shall contain the description of the land proposed to be leased, the time when the bids will be received and opened, and shall set forth the form of lease which the successful bidder will be required to execute by designating the form number on file with the Department, copies of which will be furnished to any person on request. The annual rental in such lease shall be in the amount as specified in the publication.

**Historical Note**

No original number assigned (Supp. 76-4). Former Section R12-5-854 repealed, new Section R12-5-854 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2205 renumbered from Section R12-5-854 (Supp. 93-3).

**R12-5-2206. Designation and Offer of Lands for Lease**

State lands which are determined to be located within a Known Geothermal Resource Area (KGRA) shall be divided into tracts for leasing purposes. Each tract shall contain not less than one-half section of land and not more than one section of land, provided that a tract containing less than one-half section of land may be leased if the tract is segregated from other state lands. All such tracts shall be in as compact a body as possible and shall be offered for lease at a royalty of not less than 12 1/2% or as otherwise to be specified in the call for sealed bids to the qualified person who offers the highest cash bonus by competitive sealed bids. Such lands shall be offered when, in the opinion of the Department, there shall be a demand for the purchase of leases on such lands.

**Historical Note**

No original number assigned (Supp. 76-4). Former Section R12-5-855 repealed, new Section R12-5-855 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2206 renumbered from Section R12-5-855 (Supp. 93-3).

**R12-5-2207. Qualifications of Successful Bidder**

Each person shall submit with his sealed bid a certified check for the amount bid by him.

**Historical Note**

No original number assigned (Supp. 76-4). Former Section R12-5-856 repealed, new Section R12-5-856 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2207 renumbered from Section R12-5-856 (Supp. 93-3).

**R12-5-2208. Award of Lease**

**A.** Following the opening of the sealed bids, the Department, subject to its right to reject any or all bids, shall award the lease to the highest bidder. Notice of the Department's action shall be forthwith transmitted to the interested parties. The Department shall return forthwith all checks accompanying rejected bids. If the lease is awarded, two copies of the lease will be sent to the successful bidder, and the bidder will be required within 30 days from receipt thereof to execute and return them to the Department, pay the first year's rental, the cost of publication, and the reasonable expenses of the sale. If a bidder, after having been awarded a lease, fails to execute it or otherwise comply with the applicable regulations, all of the bidder's monies on deposit will be forfeited. As pertains to tract offerings located within a known geothermal resource area, if two or more tracts are awarded to any bidder where the acreage does not exceed more than two sections of contiguous adjacent land, such tracts may, if not otherwise prohibited by law, be included in a single lease.

**B.** Tie bids. In the case of acceptable tie bids, amended applications shall be submitted by those tied applicants, and preference will be given to the highest resulting bonus bid, but still subject to the Department's right to reject any and all bids.

**Historical Note**

No original number assigned (Supp. 76-4). Former Section R12-5-857 repealed, new Section R12-5-857 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2208 renumbered from Section R12-5-857 (Supp. 93-3).

**R12-5-2209. Surface Use**

**A.** Geothermal resources lessees shall have the right to use so much of the surface of the lands as may be reasonably necessary for the conduct of their operations under the leases.

**B.** Surface rights to include:

1. Prospecting, exploration drilling and production.

2. Right to construct and maintain all roads, communication lines, pipelines, reservoirs, storage tanks, pumping stations, or other structures reasonably necessary to the production thereof, to the extent such construction is compatible with existing and future surface use of the land, as determined by the State Land Commissioner.

However, the lessee shall be liable for unnecessary or excessive damage caused by lessee, in the judgment of the Department, to the state's interest in the surface, or to the interest of a surface lessee, if any, and the Department may require the lessee at any time to execute a bond in a reasonable principal amount as determined by the Department conditioned upon payment for all such damage. If the lessee and a surface lessee cannot agree upon the amount of damages caused by lessee, such damages shall be appraised by the Department or its agent and appeal from the judgment of the Department may be taken as provided by law.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-858 repealed, new Section R12-5-858 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2209 renumbered from Section R12-5-858 (Supp. 93-3).

**R12-5-2210. Environmental Protection and Conduct of Operations**

**A.** All lessees and operators shall comply with all applicable Arizona environmental statutes as now in effect or as hereafter enacted or amended, and all applicable rules and regulations. In addition, lessee must comply with all federal environmental statutes and regulations.

**B.** Lessee or operator shall be subject to liability for any excessive or unnecessary damage to the surface of the ground and improvements thereon, and is charged to conduct operations so as not to pollute surface or subsurface waters on the lands covered by the lease or on neighboring lands.

**C.** In addition, operations shall be conducted so as to prevent pollution to the air, noise pollution, compliance with the Arizona Antiquities Act and acts providing for the protection of native flora and fauna.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-859 repealed, new Section R12-5-859 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2210 renumbered from Section R12-5-859 (Supp. 93-3).

**R12-5-2211. Cooperative and Unit Agreements**

Commitment of leases of state lands to cooperative or unit agreements shall be conditioned on the following procedure and requirements which shall be submitted at time of application.

1. There shall be submitted to the Department two copies of a plat showing the area to be unitized, together with such geophysical and geological information as will tend to support the delineation of a geothermal resource area. The information so furnished shall be held confidential by the Department until released by the applicant or applicants.
2. There shall be submitted to the Department two preliminary drafts of the agreement for approval as to form. Where the amount of federal land predominates in any unit area, the standard form of unit agreement of the United States should be followed.
3. After determination by the Department that it is for the best interest of the state to permit a lessee to participate in a cooperative or unit agreement for the development and operation of a geothermal resource area, the Department may grant approval therefor when a request for such approval is submitted.
4. A cooperative or unit agreement shall not affect the leasehold of any leased state lands lying outside of the unit area, and shall not be effective as to the leaseholds lying within the unit area unless the lessees thereof and the then approved operating interests shall subscribe to such an agreement.
5. The terms and conditions of leases covering state lands will be modified and changed to the extent necessary to conform the same to the terms and conditions of the agreement.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-860 repealed, new Section R12-5-860 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2211 renumbered from Section R12-5-860 (Supp. 93-3).

**R12-5-2212. Assignments**

A lessee may assign a lease as to all or part of the leased land or any interest in the leasehold rights to any person, firm, association, or corporation qualified to hold the same, provided that any assignment of a part of a lease shall cover not less than a quarter of a quarter of a section, or approximate equivalent thereof. If a portion of a lease is assigned as divided interest of the lands covered thereby, the rental payment attributable to each new divided interest shall be the sole responsibility of the new assignee, and default in rental payment by one shall not affect the rights or other leasehold interests under the original lease. If an undivided interest in a leasehold is assigned, then the rental payments are attributable to the lease as a whole and the original lessee is solely responsible for the payments thereof. All assignments shall be on forms prescribed by the Department and shall be filed with the Department within 30 days from the date thereof by depositing a duplicate executed original or certified copy by a notary public. No such assignment shall cover more than one lease or a portion thereof. The Department shall retain in its files executed duplicate originals of all issued leases and all assignments deposited with it, and all such leases and assignments shall be recorded in tract books for such purposes to be considered a valid assignment by the Department. All assignments deposited with the Department must be accompanied by the prescribed fee.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-861 repealed, new Section R12-5-861 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2212 renumbered from Section R12-5-861 (Supp. 93-3).

**R12-5-2213. Surrender**

A lease or any part thereof, but not less than a quarter of a quarter section, or the approximate equivalent thereof, may be surrendered at any time by the record title holder thereof to the lessor upon payment to the Department of all amounts then due as to the lands so surrendered. The surrender shall be made by depositing with the Department one copy of the instrument of surrender, and thereafter the lessee or record title holder shall incur no further liability under the lease as to the land so surrendered.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-862 repealed, new Section R12-5-862 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2213 renumbered from Section R12-5-862 (Supp. 93-3).

**R12-5-2214. Rental**
Rentals shall be not less than $1.00 per acre per year. All rentals shall be due and payable at the Department on or before the anniversary due date of the primary term of the lease. Failure to submit rental payments in compliance herewith shall be considered cause for cancellation.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-863 repealed, new Section R12-5-863 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2214 renumbered from Section R12-5-863 (Supp. 93-3).

**R12-5-2215. Royalty**
Lessee shall pay to the lessor as royalty not less than 12 1/2% or as otherwise specified in the publication and the lease of the market value at the well head or point of delivery to the purchaser of all geothermal resources and associated by-products; which market value shall be established by submitting to the Department every month properly metered and calibrated volume charts and chemical analysis reports (settlement tests) in a manner approved by the Department. These charts and analyses shall be collected, sampled and computed for gross value by an approved, qualified and bonded engineering company, and at the lessee's expense. The market value of the geothermal resources shall be determined by posted prices paid industry-wide for each marketable constituent and unit of measurement thereof, and shall be due and payable not later than the 25th day of the calendar month following the calendar month of production. If lessor elects to take its royalty geothermal resources in kind, lessee shall, upon lessor's request and at lessor's sole risk, furnish free of cost to lessor, lessor's percent of royalty production to an acceptable metering point on the lease.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-864 repealed, new Section R12-5-864 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2215 renumbered from Section R12-5-864 (Supp. 93-3).

**R12-5-2216. Abandonment -- Other Uses**
As provided for in A.R.S. § 27-667(C) any well drilled for geothermal resource which has penetrated fresh water zones may be disposed of as a fresh water well subject to the following conditions:

1. State's lessee must file written request for such use with the Department.
2. Condition of the hole must be such that plugging back to fresh water zone can be safely accomplished.
3. Must meet the requirements of the rules and regulations of the Department pertaining to such use.
4. Must meet the requirements of the Commission's rules and regulations pertaining to disposal of groundwater.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-865 repealed, new Section R12-5-865 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2216 renumbered from Section R12-5-865 (Supp. 93-3).

**R12-5-2217. Logs -- Reports -- Records**
The State Land Commissioner or the Commissioner's designated representative shall have the right to inspect all records, books or accounts pertaining to geothermal resources taken from leased state lands, and at the request of the State Land Commissioner the holder of the lease shall furnish such reports, logs, assays, or cores, as the Commissioner or the Commissioner's designated representative may deem necessary for the proper administration of the state lands under lease. Lessee shall file production and royalty reports in triplicate upon forms as may be prescribed by the State Land Commissioner no later than the 25th day of the calendar month following the calendar month of production.

**Historical Note**
No original number assigned (Supp. 76-4). Former Section R12-5-866 repealed, new Section R12-5-866 adopted effective March 14, 1979 (Supp. 79-2). Section R12-5-2217 renumbered from Section R12-5-866 (Supp. 93-3).

**R12-5-2218. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2218 renumbered from Section R12-5-867 (Supp. 93-3).

**R12-5-2219. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2219 renumbered from Section R12-5-868 (Supp. 93-3).

**R12-5-2220. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2220 renumbered from Section R12-5-869 (Supp. 93-3).

**R12-5-2221. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2221 renumbered from Section R12-5-870 (Supp. 93-3).

**R12-5-2222. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2222 renumbered from Section R12-5-871 (Supp. 93-3).

**R12-5-2223. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2223 renumbered from Section R12-5-872 (Supp. 93-3).

**R12-5-2224. Renumbered**

**Historical Note**
No original numbers assigned (Supp. 76-4). Repealed effective March 14, 1979 (Supp. 79-2). Section R12-5-2224 renumbered from Section R12-5-873 (Supp. 93-3).

## ARTICLE 23. BOARD OF APPEALS

**R12-5-2301. Definitions**
Unless the context requires otherwise, the words defined below shall have the following meaning when found in these rules:

1. "Appellant" means the person who files a notice of appeal with the Clerk pursuant to A.R.S. § 37-215.
2. "Board" means the Land Department Board of Appeals appointed by the Governor pursuant to A.R.S. § 37-213(A).
3. "Chairperson" means the Chairperson or, in the Chairperson's absence or by designation, the Vice-chairperson of the Land Department Board of Appeals.

4. "Clerk" means the person designated as Clerk of the Land Department Board of Appeals.
5. "Commissioner" means the Land Commissioner of the state of Arizona, or the Land Commissioner's duly authorized deputy.
6. "Department" means the Land Department of the state of Arizona.
7. "Ex parte communication" means an oral or written communication not on the public record with respect to which reasonable prior notice to all parties is not given.
8. "Person" shall include an individual, limited liability company, corporation, association, partnership, receiver, trustee, guardian, executor, administrator, fiduciary representative, or any group acting as a unit, and includes any department, agency, or instrumentality of the state or of any governmental subdivision thereof.
9. "Person outside the Board" means any person other than a Board member, an employee, or consultant of the Board, or an attorney representing the Board in its adjudicatory role.

**Historical Note**
Adopted effective September 9, 1983 (Supp. 83-5). Section R12-5-2301 renumbered from Section R12-5-901 (Supp. 93-3). Former Section R12-5-2301 renumbered to R12-5-2315, new Section R12-5-2301 adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2302. Contents of a Notice of Appeal**
A notice of appeal filed pursuant to A.R.S. § 37-215 shall contain a clear and concise statement of the grounds for appeal and the specific relief requested.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2303. Notice of Hearing**
**A.** Setting a hearing date. Within 10 days from the date of receiving the Notice of Appeal pursuant to A.R.S. § 37-215, the Clerk shall set a date for the hearing in compliance with A.R.S. § 37-215.
**B.** Service of a notice of hearing. At least 20 days prior to the date of the hearing, the Clerk shall serve notice of the hearing, by certified mail or personal service, to appellant, the Department, and any other party to the appeal.
**C.** Contents of a notice of hearing. The notice shall contain:
1. A statement identifying the Board, the parties, and the matter to be heard;
2. A statement of the date, time, and place of the hearing;
3. A statement of the legal authority and jurisdiction under which the hearing is to be held;
4. A statement advising the parties of the requirements of R12-5-2305.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2304. Prehearing Disclosure**
**A.** Witnesses and Exhibits. At least 10 days prior to the date set for hearing, each party shall:
1. File with the Clerk:
   a. A list of all witnesses who may be called to testify on behalf of the party,
   b. Eight copies of all documentary exhibits to be offered on behalf of the party;
2. Serve upon each other party 1 copy of the list of witnesses and a list of all exhibits to be offered on behalf of the party.

**B.** The Board shall exclude the testimony of any witness and the admission of any exhibit not disclosed pursuant to subsection (A), unless the Board determines that the admission of the evidence would be in the interests of fairness and justice.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2305. Continuances**
**A.** General. The Chairperson may, for good cause, continue or reschedule any hearing before the Board on the Chairperson's own motion, on application of a party, or on stipulation of the parties.
**B.** Application for continuance.
1. Filing. A party applying for a continuance of a hearing shall file an application with the Clerk of the Land Department Board of Appeals and serve all parties no later than 10 days before the scheduled date of the hearing. The Chairperson may allow the party to file and serve the motion after the expiration of such period for good cause.
2. Contents. The application shall state why the continuance is being requested, why a stipulation from adverse parties was not obtained, and the amount of time being requested.

**C.** Response; reply. Any opposing party may, within 5 days after such service, file and serve a response. A reply shall be permitted.
**D.** Stipulations. The parties may stipulate to a continuance. The Board will accept such stipulations filed no later than 72 hours prior to the date and time scheduled for the hearing.
**E.** Time limits. Absent consent of the parties, a continuance cannot be granted which would result in the hearing not being conducted in compliance with A.R.S. § 37-215(C).

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4). Typographical correction made to A.R.S. reference in R12-5-2305(E) (Supp. 96-3).

**R12-5-2306. Computation of Time; Additional Time After Service by Mail**
**A.** Computation. In computing any period of time prescribed or allowed by these rules or by order of the Board, the day of the act, event, or default after which the designated period of time begins to run is not to be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or legal holiday, in which event the period runs until the end of the next day which is not a Saturday, Sunday, or legal holiday. When the period of time prescribed or allowed is less than 7 days, intermediate Saturdays, Sundays, and legal holidays shall be excluded in the computation.
**B.** Service by mail. Whenever a party has a right or is required to do some act or proceed within a prescribed period after the service of a notice or other paper upon the party and the notice or paper is served by mail, 5 calendar days shall be added to the prescribed period.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2307. Service of Documents Other than Subpoenas**
**A.** Method of service. Unless otherwise specified by these rules, service of documents other than subpoenas shall be made by
1. Hand delivery with receipt or certificate of delivery,
2. Legible facsimile with confirmed receipt,
3. Personal service, or
4. By regular mail, properly addressed with postage prepaid,

to each party in the proceeding. When a party has appeared by an attorney, service upon such attorney shall be deemed service upon such party.

**B.** Time of service. Service shall be deemed made at the time of personal service of the document or upon deposit of the document in the United States mail, postage prepaid, in a sealed envelope, and addressed to the person being served, at the last known address of record.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2308. Subpoenas**

**A.** Issuance of subpoenas. In connection with any hearing, the Chairperson, upon written application of a party or on the Chairperson's own motion, may issue subpoenas requiring the attendance and testimony of witnesses or the production of documentary or other tangible evidence, or both. Applications to compel witnesses who are not parties to the proceedings, or agents of such parties, to produce documentary evidence shall specify the books, papers, or documents desired.

**B.** Service of subpoenas. Subpoenas shall be personally served. Service of each subpoena is the responsibility of the party requesting the subpoena.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2309. Motions**

**A.** Generally. An application to the Board for an order or other relief shall be made by motion. Unless the motion is made during a hearing, it shall be made in writing. The motion shall state with particularity the grounds on which it is based and shall set forth the relief or order sought. Prehearing motions shall be considered on the written materials submitted by the parties, unless the Chairperson directs otherwise.

**B.** Response to motion; reply. Any party may file a response to a prehearing motion within 5 days after service of such motion and shall serve the response on the moving party. The moving party shall have 5 days after service of a response to file a reply to that response.

**C.** Affidavits. Motion documents which rely on facts not apparent in the record, and of which the Board cannot take judicial notice, shall be supported by affidavit or other satisfactory evidence.

**D.** Rulings on motions. The Chairperson may rule on procedural motions, but all other motions shall be ruled upon by the Board.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2310. Hearing**

**A.** Recording of hearing. The hearing shall be tape-recorded or stenographically recorded.

**B.** Order of appearance. The Chairperson shall designate the order in which parties shall introduce their evidence.

**C.** Improper Conduct. Noncompliance with any order of the Chairperson or disruption of any hearing shall be deemed improper conduct and grounds for exclusion from the hearing.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2311. Evidence**

**A.** Generally. All witnesses at a hearing shall testify under oath or affirmation. All parties shall have the right to present such oral or documentary evidence and to conduct such cross-examination as may be required for a full and true disclosure of the facts. The Chairperson shall receive relevant, probative, and material evidence, rule upon offers of proof, and exclude all evidence the Chairperson has determined to be irrelevant, immaterial, or unduly repetitious.

**B.** Evidence. The Chairperson may conduct a hearing in an informal manner and without adherence to the rules of evidence required in judicial proceedings.

**C.** Official Notice. The Board may take official notice of any matter than might be judicially noticed by a superior court of the state of Arizona or any matter that is peculiarly within the knowledge of the Board as an expert body.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2312. Objection to Decision by Chairperson**

If any member of the Board objects to a decision of the Chairperson pursuant to these rules, the Board member may request that the Board vote on the matter in question and the Chairperson shall submit the matter to a vote of the entire Board.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2313. Ex Parte Communications**

**A.** Prohibitions. In any contested case before the Board, except to the extent required for disposition of ex parte matters as authorized by law or these rules of procedure:

1. No interested person outside the Board shall make or knowingly cause to be made to any Board member, employee, or consultant who is or may reasonably be expected to be involved in the decisional process of the proceeding, an ex parte communication relevant to the merits of the proceeding;
2. No Board member, employee, or consultant who is or may reasonable be expected to be involved in the decisional process of the proceeding shall make or knowingly cause to be made to any interested person outside the Board an ex parte communication relevant to the merits of the proceeding.

**B.** Record. A Board member, employee, or consultant who is or may reasonably be expected to be involved in the decisional process of the proceeding, who receives, makes, or knowingly causes to be made a communication prohibited by this rule, shall place in the public record of the proceeding all such written communications and all written responses to the communications and by oral testimony in the record state the substance of all such oral communications.

**C.** Action by Board. Upon receipt of a communication made or knowingly caused to be made by a party in violation of this Section, the Board, to the extent consistent with the interests of justice and the policy of the underlying statutes and rules, may require the party to show cause why his claim or interest in the proceeding should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation.

**D.** Effective time period. The provisions of this Section shall apply beginning at the time in which a notice of appeal is filed in a contested case unless the person responsible for the communication has knowledge that it will be noticed, in which case the prohibitions shall apply beginning at the time of the person's acquisition of such knowledge.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2314. Decision of the Board**

**A.** Time limit. Unless the parties stipulate otherwise, the Board shall render its final decision within 60 days from the date of the hearing.

**B.** Contents. The Board's decision shall contain its findings of facts and conclusions of law, separately stated, and the decision.

**Historical Note**
Adopted effective November 27, 1995 (Supp. 95-4).

**R12-5-2315. Rehearing or Review of Decision**

**A.** Generally. Except as provided in subsection (F), any party in a contested case before the Board who is aggrieved by a decision rendered in such case may file with the Board, not later than 15 days after service of the decision, a written motion for rehearing or review of the decision, with supporting memorandum, specifying the particular grounds therefor. For purposes of this subsection, a decision shall be deemed to have been served when personally delivered or mailed by certified mail to the party at his last known residence or place of business. The Board may also grant a rehearing or review on its own initiative not later than 15 days after a written decision has been issued.

**B.** Amendment of motion; response; oral argument. A motion for rehearing under this rule may be amended at any time before it is ruled upon by the Board. A response may be filed within 10 days after service of such motion or amended motion by any other party. Motions and responses shall be supported by memoranda discussing legal and factual issues. Oral argument may be requested by either party or by the Board.

**C.** Grounds for rehearing or review. A rehearing or review of the decision may be granted for any of the following causes materially affecting the moving party's rights:

1. Irregularity in the administrative proceedings of the Board or its staff or the prevailing party, or any order or abuse of discretion which deprived the moving party of a fair hearing;
2. Misconduct of the Board or its staff or the prevailing party;
3. Accident or surprise which could not have been prevented by ordinary prudence;
4. Newly discovered material evidence which could not, with reasonable diligence, have been discovered and produced at the original hearing;
5. Error in the admission or rejection of evidence or other errors of law occurring at the administrative hearing;
6. That the decision is not justified by the evidence or is contrary to law.

**D.** Affirmation or modification of decision; grant of rehearing or review. The Board may affirm or modify the decision or grant a rehearing to all or any of the parties on all or part of the issues for any of the reasons set forth in subsection (C), and, after giving notice and an opportunity to be heard, the Board may grant a rehearing for reasons not specified in a party's motion. An order modifying a decision or granting a rehearing shall specify the grounds for such order.

**E.** Affidavits. When a motion for a rehearing is based upon affidavits, they shall be served with the motion. An opposing party may, within 10 days after such service, serve opposing affidavits, which period may be extended for an additional period not exceeding 10 days by the Chairperson of the Board for good cause shown or by written stipulation of the parties. Reply affidavits may be permitted.

**F.** Emergencies. If in a particular decision the Board makes specific findings that the immediate effectiveness of such decision is necessary for the preservation of the public health and safety and that a rehearing or review of the decision is impracticable, unnecessary, or contrary to the public interest, the decision may be issued as a final decision without an opportunity for a rehearing or review. If a decision is issued as a final decision without an opportunity for rehearing, any application for judicial review of the decision shall be made within the time limits permitted for applications for judicial review of the Board's final decisions.

**G.** Time Limits. A motion for review or rehearing will be considered expeditiously and in no case more than 90 days after it has been filed. If a rehearing is granted it will be held expeditiously and in no case more than 90 days after the order granting the rehearing has been issued.

**Historical Note**
Adopted effective September 9, 1983 (Supp. 83-5). Section R12-5-2301 renumbered from Section R12-5-901 (Supp. 93-3). Section R12-5-2315 renumbered from R12-5-2301 and amended effective November 27, 1995 (Supp. 95-4).

## ARTICLE 24. NAVIGABLE STREAM PUBLIC TRUST LANDS

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

**R12-5-2401. Criteria for Determining Record Owners or Lessees to be Noticed of Navigability Determination**

**A.** Notice of navigability determination shall be delivered by certified mail to each record owner or lessee, each person and entity that has an interest of record in property located within the 100-year flood plain as defined in 44 CFR 59.1 (10-1-92 edition and no later editions), incorporated herein by reference and on file with the Arizona State Land Department and the Office of the Secretary of State, and to each person or entity who has requested such notice from the Department. The Department shall expand notification beyond the 100-year flood plain where its records or the records of the Arizona Navigable Streambed Adjudication Commission contain substantial evidence that the boundaries of public trust land extend beyond the 100-year flood plain.

**B.** An interest of record is one that has been recorded with the county recorder in the county in which the affected real property is located as of the date the Arizona Navigable Stream Adjudication Commission enters its final navigability determination.

**Historical Note**
Adopted under an exemption from the provisions of the Administrative Procedure Act, effective July 8, 1993 (Supp. 93-3).

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

**R12-5-2402. Show Cause Hearing Related to Boundary Survey Determinations**

The Department shall afford each person or entity notified pursuant to A.R.S. § 37-1131(B) the right to appear and show cause before the Commissioner, upon a date to be fixed in such notice, why the survey obtained by the Department should not be approved as certi-

fied. If, after the hearing, the Commissioner approves the land survey, or approves a modified land survey, any party aggrieved by the Commissioner's decision may request a rehearing pursuant to the Department's hearing rules.

**Historical Note**
Adopted under an exemption from the provisions of the Administrative Procedure Act, effective July 8, 1993 (Supp. 93-3).

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

**R12-5-2403. Recording of Navigability Judgments**
A final judgment regarding navigability shall be recorded by the Department in the office of the county recorder of each county in which all or part of land affected by the judgment is located.

**Historical Note**
Adopted under an exemption from the provisions of the Administrative Procedure Act, effective July 8, 1993 (Supp. 93-3).

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

**R12-5-2404. Release of Lands from Public Trust Status for Sale**

**A.** A petitioner to release lands from public trust status shall include in his petition comprehensive information relevant to the extent
1. To which a release of the trust is appropriate in light of the public benefit to be derived from alternate uses, and
2. The equitable interests or hardships of the record title holder or lessee.

**B.** The petition shall also include information relevant to the statutory criteria found at A.R.S. § 37-1151(A)(1) through (18).

**C.** The petition shall be accompanied by an application to purchase state lands, which shall be governed by the rules of the Department unless otherwise required by law.

**D.** The cost of providing statutory notice to those listed with the Department as interested in commenting and of providing copies of the final decision to commenters shall be borne by the applicant to purchase state lands.

**Historical Note**
Adopted under an exemption from the provisions of the Administrative Procedure Act, effective July 8, 1993 (Supp. 93-3).

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Administrative Procedure Act which means that this rule was not reviewed by the Governor's Regulatory Review Council; the agency did not submit notice of proposed rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the agency was not required to hold public hearings on the rule; and the Attorney General has not certified this rule.***

**R12-5-2405. Postponement of Hearing When Navigability has not been Adjudicated**
If a matter set for hearing may be affected by final adjudication of the navigability of a watercourse, the Commissioner may, on his own motion or at the request of a party, postpone hearing the matter until navigability has been finally adjudicated.

**Historical Note**
Adopted under an exemption from the provisions of the Administrative Procedure Act, effective July 8, 1993 (Supp. 93-3).

## ARTICLE 25. CLASSIFYING TRUST LANDS AS SUITABLE FOR CONSERVATION PURPOSES

**R12-5-2501. Petition**

**A.** A petition to nominate trust land suitable for conservation purposes may be filed at the Arizona State Land Department during regular business hours. The petition shall be made on a form provided by the Department.

**B.** A petitioner shall nominate Trust lands in a manner consistent with and only for lands considered eligible under A.R.S. § 37-311, et seq**.**

**C.** A petitioner shall include the following information in a petition to nominate trust land suitable for conservation purposes:
1. A legal description of the land and a map that identifies the Township (T), Range (R), section, land description, acreage and county where the land is located. (Example: T1N, R3E, Section 17, SWNW, 40 acres, Maricopa County);
2. A statement of proposed conservation uses of the land;
3. A statement of why the land is suitable for conservation purposes with reference to the criteria identified in R12-5-2502(A);
4. A statement of the existing surface uses on the land and how each existing use is affected both physically and economically by the proposed conservation use;
5. An identification of the local jurisdiction in which the land is located;
6. A statement of the local governing authority's comprehensive plan designation and existing zoning for the land and how the proposed conservation use is or is not consistent with the comprehensive plan and zoning;
7. A statement of the positive and negative physical and economic impacts on the local community nearest the land;
8. A statement of who or what entity will likely manage the land if, after the land is reclassified as suitable for conservation purposes, the land is approved for lease or purchase for conservation purposes; and
9. A statement of any known mineral potential, including sand and gravel, of the lands.

**Historical Note**
Adopted effective March 5, 1998 (Supp. 98-1).

**R12-5-2502. Reclassification**

**A.** Criteria: Reclassification of state lands as suitable for conservation purposes shall be in the best interest of the Trust as determined by the Commissioner. The Commissioner and the Conservation Advisory Committee may consider any or all of the following criteria in evaluating whether the nominated land should be reclassified as suitable for conservation purposes:
1. Open space: Existence of substantially undisturbed open space values that make the land's conservation an asset to the community or to other adjacent developable state trust land;
2. Unique scenic beauty:

a. Existence of a natural community landmark such as a significant mountain vista; or,
b. Existence of a scenic vista on to or through the land under petition from nearby major roadways or pathways, in addition to the mere existence of undeveloped open space;

3. Wildlife and vegetation:
a. Existence of significant vegetation or wildlife, both native to the region and worthy of protection due to the relative lushness, health and diversity of the vegetation or the number and diversity of the wildlife;
b. Existence of endangered, threatened, or protected plants or endangered or threatened wildlife species as identified under federal or state laws;
c. Existence of significant stands of a signature plant characteristic of the location;

4. Cultural resources:
a. Existence of a prehistoric or historic archaeological site;
b. Existence of a historic structure; or
c. Comparative costs of mitigation, data recovery, or preservation compared to potential revenue production of the land;

5. Wildlife habitat:
a. Existence of sufficient acreage and habitat quality to support populations of endangered, threatened, or other particular species;
b. Interconnection between the land under petition and nearby public lands for wildlife movement;
c. Diversity of plant communities or biodiversity of plant or animal species;
d. Habitat condition, whether intact or degraded; or
e. Distance from an existing or proposed roadway, utility line, or urban development;

6. Other:
a. Geologic and topographic features:
i. Existence of a significant wash, slope, or other topographic feature;
ii. Existence of a unique rock outcropping, formation or other unusual geologic feature; and
iii. Known soil conditions unsuitable for development purposes;
b. Watershed integrity: Relationship of the land to maintenance of the integrity of 1 or more watersheds;
c. Floodplain management: Impact of the 100-year floodplain on the land;
d. Surface water and groundwater:
i. Existence of a spring or other wetland;
ii. Occurrence of perennial or intermittent stream flow; and
iii. Potential for groundwater recharge.
e. Long-term viability of the land for conservation management:
i. Viability of the land based on its size, configuration, and location for successfully conserving the resources it seeks to protect; and
ii. Relationship of conservation of the land to resolving wildland fire issues, particularly in the urban-wildland interface;
f. Local, regional, or other planning considerations:
i. Relationship between the proposed conservation designation and adopted local and regional plans and policies; and
ii. Relationship of the land to other federal, state, local, or private land trust preserves, holdings, or plans;
g. Recreation:
i. Existence of or proposed trail-based or other low impact recreation opportunities; and
ii. Existence of direct access to or from adjacent public or private lands used for recreational purposes;
h. Accessibility:
i. Public accessibility and nature of that accessibility to the land; and
ii. Impact of accessibility, based on the purpose of conservation of the land;
i. Scientific education:
i. Historic use of the land for scientific research purposes; and
ii. Opportunities for scientific education;
j. Types of multiple use:
i. Multiple use potential of the land; and
ii. Impact of specific multiple uses on the land;
k. Resource production preservation:
i. Existence of grazing lands under petition that a conservation designation may help to protect;
ii. Existence of prime agriculture areas under petition that a conservation designation may help to protect; and
iii. Protection of the resource production component (such as grazing, agriculture, mining, and timber) of the local or regional economy;
l. Relationship to other state trust lands:
i. Proximity to other state trust lands;
ii. Development capability of adjacent state trust lands; and
iii. Anticipated timing of development activity on adjacent state trust lands;
m. Preexisting protections: Existence of any federal, state, or local law requiring protection by existing lessee of proposed conservation values;
n. Tourism: Impact on local or regional tourism;
o. Benefit to the Trust: Whether and for what reason reclassification is in the best interest of the Trust;

**B.** Multiple Petitions: If multiple petitions are received and the Commissioner determines that reclassification is in the best interest of the Trust, the Commissioner may reclassify the land with the conservation purpose stated in 1 or more than 1 of the petitions, or the Commissioner may reclassify the land without stating a conservation purpose.

**C.** Management Plan: Upon reclassification, the Commissioner may require a party to submit a management plan to allow existing and conservation uses to be coordinated in a manner that will protect both existing uses and conservation and open space values.

**Historical Note**
Adopted effective March 5, 1998 (Supp. 98-1).

**R12-5-2503. Bond**

**A.** Under A.R.S. § 37-312(D), a petitioner shall submit a bond in an initial amount of $1,000 with a petition to nominate trust land suitable for conservation purposes. The bond shall be a surety bond or a cashier's check. The State Land Commissioner may require an additional bond amount under A.R.S. § 37-312 if the processing costs of the petition are estimated to exceed the initial bond amount based on the following factors:
1. Planning Costs: Planning involves review, consideration, and evaluation of:

a. Evidence and testimony presented at public hearing;
b. Physical and economic impact on other land owned or controlled by the current lessee or on the local community;
c. Existing holding leases, existing planning permits, and development plans in progress;
d. Input from local planning and zoning agencies and regional planning authorities;
e. Mineral potential, including sand and gravel; and
f. Consistency with the Enabling Act, the State Constitution, and Arizona Revised Statutes;

2. Notice: Development and mailing of a notice of intent to classify lands suitable for conservation purposes and a notice of public hearing to:
a. Existing lessees;
b. Local planning and zoning agencies and regional planning authorities;
c. Owners of property within 300 feet of the land;
d. Persons who have requested notice of classification of lands suitable for conservation under A.R.S. § 37-311, et seq., with the Department; and
e. Affected state agencies;

3. Advertisement: Notice of public hearing for 6 publications in a newspaper of general circulation in the county where the land is located;
4. Public Hearing: Receipt and processing of oral and written testimony regarding the proposed reclassification including, but not limited to, review, consideration, and evaluation of testimony, as well as the costs of meeting facility and equipment rental.

**B.** Upon reclassification of all or a portion of the land as suitable for conservation purposes, the successful petitioner shall forfeit the initial and any additional bond amounts to the state under A.R.S. § 37-312(D).

**Historical Note**
Adopted effective March 5, 1998 (Supp. 98-1).

# TITLE 12. NATURAL RESOURCES

## CHAPTER 6. ARIZONA STATE MUSEUM

*Article 1, consisting of Sections R12-6-101 and R12-6-102, Article 2 consisting of Sections R12-6-201 through R12-6-206, Article 3 consisting of Sections R12-6-301 through R12-6-310, Article 4 consisting of Sections R12-6-401 through R12-6-418, Article 5 consisting of Sections R12-6-501 through R12-6-503, Article 6 consisting of Section R12-6-601, and Article 7 consisting of Sections R12-6-701 through R12-6-714, approved summary rules filed December 23, 1997; interim effective date of July 25, 1997, now the permanent effective date (Supp. 97-4).*

*Article 1, consisting of Sections R12-6-101 and R12-6-102, Article 2 consisting of Sections R12-6-201 through R12-6-206, Article 3 consisting of Sections R12-6-301 through R12-6-310, Article 4 consisting of Sections R12-6-401 through R12-6-418, Article 5 consisting of Sections R12-6-501 through R12-6-503, Article 6 consisting of Section R12-6-601, and Article 7 consisting of Sections R12-6-701 through R12-6-714, repealed by summary action with an interim effective date of July 25, 1997; filed in the Office of the Secretary of State July 2, 1997 (Supp. 97-3).*

*Article 1, consisting of Sections R12-6-101 and R12-6-102, Article 2 consisting of Sections R12-6-201 through R12-6-206, Article 3 consisting of Sections R12-6-301 through R12-6-310, Article 4 consisting of Sections R12-6-401 through R12-6-418, Article 5 consisting of Sections R12-6-501 through R12-6-503, Article 6 consisting of Section R12-6-601, Article 7 consisting of Sections R12-6-701 through R12-6-714, adopted effective October 8, 1985.*

*Former Article 1 consisting of Section R12-6-101 repealed effective October 8, 1985.*

# TITLE 12. NATURAL RESOURCES

## CHAPTER 7. OIL AND GAS CONSERVATION COMMISSION

(Authority: A.R.S. § 27-514 et seq.)

### ARTICLE 1. OIL, GAS, HELIUM, AND GEOTHERMAL RESOURCES

Section

R12-7-101. Definitions
R12-7-102. Repealed
R12-7-103. Bond
R12-7-104. Application for Permit to Drill
R12-7-105. Change of Location
R12-7-106. Identification of Wells, Producing Leases, Tanks, Refineries, Buildings, and Facilities
R12-7-107. Spacing of Wells
R12-7-108. Pit for Drilling Mud and Drill Cuttings
R12-7-109. Repealed
R12-7-110. Surface Casing Requirements
R12-7-111. Intermediate and Production Casing and Tubing Requirements
R12-7-112. Defective Casing or Cementing
R12-7-113. Blowout Prevention and Related Well-control Equipment
R12-7-114. Recovery of Casing
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R12-7-189. Repealed
R12-7-190. Gasoline Plant Reports
R12-7-191. Reserved
R12-7-192. Books and Records to Substantiate Reports
R12-7-193. Repealed
R12-7-194. Organization Reports
R12-7-195. Repealed
Appendix 1. Repealed

### ARTICLE 2. REPEALED

*Article 2, consisting of R12-7-201 through R12-7-221, R12-7-231 through R12-7-234, R12-7-241 through R12-7-246, R12-7-251, R12-7-252, R12-7-261 through R12-7-264, R12-7-271, R12-7-272, R12-7-281, R12-7-291 through R12-7-294, and Appendix 1, repealed effective January 2, 1996 (Supp. 96-1).*

## ARTICLE 1. OIL, GAS, HELIUM, AND GEOTHERMAL RESOURCES

### R12-7-101. Definitions

In this Chapter, unless the context otherwise requires:

1. "API" means American Petroleum Institute.
2. "Barrel" means 42 (US) gallons measured at 60° F. and atmospheric pressure at sea level.
3. "BTU" means British thermal unit and represents the quantity of heat required to raise the temperature of 1 pound of water 1° F. at or near 39.2° F.
4. "Commission" means the state Oil and Gas Conservation Commission or any person lawfully empowered to act on its behalf.
5. "Condensate" means the liquid hydrocarbons recovered at the surface that result from condensation due to reduced pressure or temperature of petroleum hydrocarbons existing initially in a gaseous phase in the reservoir.
6. "Cubic foot of gas" means the volume of gas contained in 1 cubic foot of space at a standard pressure base of 14.73 pounds per square inch absolute and a standard temperature base of 60° F.
7. "Gas well" means any well which produces with a gas-oil ratio in excess of 50,000 cubic feet of gas per barrel of oil.
8. "Injection well" means any well used for the injection of air, gas, water, or any other substance into any underground stratum.
9. "Mcf" means 1000 cubic feet of gas reported at a pressure base of 14.73 pounds per square inch and 60° F.
10. "Oil well" means any well which produces with a gas-oil ratio less than 50,000 cubic feet of gas per barrel of oil.
11. "Operator" means any person authorized by an owner or owners, who controls the day-to-day activities of a well or production or refining facility.
12. "Stratigraphic test or core hole test" means any hole drilled for the sole purpose of obtaining geological information.

**Historical Note**

Former B; Former Section R12-7-101 renumbered and amended as Section R12-7-102, former Section R12-7-100 renumbered and amended as Section R12-7-101 effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

### R12-7-102. Repealed

**Historical Note**

Former 101; Former Section R12-7-102 renumbered and amended as Section R12-7-103, former Section R12-7-101 renumbered and amended as Section R12-7-102 effective September 29, 1982 (Supp. 82-5). Repealed effective January 19, 1994 (Supp. 94-1).

### R12-7-103. Bond

**A.** An operator shall file a performance bond with the Commission prior to approval of a permit to drill a new well, re-enter an abandoned well, or assume responsibility as operator of existing wells. The bond amount shall be $10,000 for a well drilled to a total depth of 10,000 feet or less, $20,000 for a well drilled deeper than 10,000 feet, or $25,000 as a blanket bond to cover all wells and shall be payable to the Oil and Gas Conservation Commission, State of Arizona, and conditioned upon the faithful performance by the operator of the duty to drill each well in a manner to prevent waste, plug each dry or abandoned well, repair each well causing waste or pollution, and maintain and restore the well site.

**B.** The Commission shall accept a bond in the form of a surety bond, executed by the operator as principal and a corporate surety authorized to do business in Arizona, a certified check, or a certificate of deposit at a federally insured bank authorized to do business in Arizona.

**C.** Transfer of property does not release the bond. If a property is transferred and the principal desires to be released from the bond, the procedure shall be as follows:

1. The principal on the bond shall notify the Commission in writing of the proposed transfer, giving the location of each well, the date and number of each permit to drill, and the name, address, and telephone number of the proposed transferee.
2. The transferee of any well or of the operation of any well shall declare to the Commission in writing acceptance of the transfer and of the responsibility of each well and shall submit a new bond or bonds unless the transferee's blanket bond applies to the well or wells.
3. When the Commission approves the transfer, the transferor is released from all responsibility with respect to the well or wells, and the Commission shall notify the principal and the bonding company in writing that the transferor's applicable bond or bonds are subject to release.

**Historical Note**

Former Rule 102; Former Section R12-7-103 renumbered and amended as Section R12-7-104, former Section R12-7-102 renumbered and amended as Section R12-7-103 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

### R12-7-104. Application for Permit to Drill

**A.** Before drilling or re-entering any well or conducting any surface disturbance associated with such activity, the operator shall submit to the Commission an application for permit to drill or re-enter and obtain approval. The complete application package shall contain:

1. An application for permit to drill on a form provided by the Commission, which shall include the operator's name, address, and phone number, and a description of the proposed well and its location;
2. A well and well-site construction plan that meets the requirements of R12-7-108 through R12-7-118;
3. A plat, prepared and certified by a registered surveyor bearing the surveyor's certificate number, on which is shown the exact acreage or legal subdivision allotted to the well as required by R12-7-107, the well's exact location, and its ground-level elevation;
4. An organization report as required by R12-7-194;
5. A performance bond, as required by R12-7-103; and
6. A fee of $25.00 per well.

**B.** The Commission shall mail to the applicant, within 30 days of receipt of the application required in subsection (A), written notice of administrative completeness or a detailed list of deficiencies. Within 30 days of receipt of all items required in subsection (A), the Commission shall review the application and:

1. Issue a permit to drill, or
2. Provide a written explanation in compliance with A.R.S. § 41-1076 to the applicant if the application is not approved.

**C.** Time-frames

1. The administrative review period is 30 days. The substantive review period is 30 days. The overall time-frame is 60 days.
2. For the purpose of this subsection, intermediate Saturdays, Sundays, and legal holidays shall be included in the time-frame computation. The last day of the notice period

shall be included in the computation unless it is a Saturday, Sunday, or legal holiday.

**D.** Unless operations are commenced within 180 days after date of approval, the permit to drill shall become null and void unless an extension in writing is granted by the Commission.

**E.** In case of imminent danger to public safety or of contamination of the environment, the Commission may authorize the drilling of an emergency relief or offset well to reduce the danger or hazard. Within 10 days of commencing an emergency relief or offset well, the operator shall file an application as required in subsection (A). No well drilled under this subsection shall be used for production unless it conforms to the provisions of R12-7-107.

**Historical Note**

Former Rule 103; Former Section R12-7-104 renumbered and amended as Section R12-7-105, former Section R12-7-103 renumbered and amended as Section R12-7-104 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1). Amended effective June 6, 1997 (Supp. 97-2).

**R12-7-105. Change of Location**

**A.** No operator shall drill a well in a location other than that authorized by the permit issued pursuant to R12-7-104 until the following requirements have been met:

1. If the operator decides to change the location before drilling the well, an amended application for permit to drill shall be filed showing the new location.
2. If it is determined that the location is erroneously described on the permit after drilling has begun, the operator shall obtain a new permit showing the correct location.

**B.** If the new location is at an authorized point in the approved drilling unit as provided in the initial permit, the application may be made by electronic communication and the Commission may by electronic communication authorize the commencement or continuance of drilling operations. Within ten days after obtaining such authorization, the operator shall file an amended application showing the new location. An amended permit may be issued and the old permit cancelled without payment of additional fee.

**C.** If the new location is located outside the approved drilling unit covered by the initial permit, no drilling shall be commenced or continued until a new application for permit to drill is filed and approved as required by R12-7-104, including payment of an additional fee.

**Historical Note**

Former Rule 104; Former Section R12-7-105 renumbered and amended as Section R12-7-106, former Section R12-7-104 renumbered and amended as Section R12-7-105 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-106. Identification of Wells, Producing Leases, Tanks, Refineries, Buildings, and Facilities**

**A.** The operator shall mark each drilling, producing, injection, or shut-in well in a conspicuous place with the operator's name, lease name or number, well number, and the legal description of the well's location.

**B.** The operator shall mark each abandoned well as required in R12-7-127(F).

**C.** The operator shall mark all tank batteries, gasoline plants, structures, storage buildings, compressors, and compressor buildings, and all other storage or transportation equipment with the operator's name, address, telephone number, lease name or number, and location. All structures within a fenced yard may be identified by a single sign at the principal outside entrance to the yard.

**D.** The operator of a storage-well facility shall clearly mark each well with the operator's name, lease name or number, and well number. Each outside entrance to the facility shall be marked with the operator's name, address, and one or more emergency response telephone numbers.

**E.** The operator of a refinery shall mark each facility at each outside entrance with the operator's name, address, and one or more emergency response telephone numbers.

**F.** Sign lettering shall contrast strongly with the background and be large enough to be legible under normal conditions at a distance of 25 feet. The operator shall preserve these markings and keep them legible and up to date.

**Historical Note**

Former Rule 105; Former Section R12-7-106 renumbered and amended as Section R12-7-107, former Section R12-7-105 renumbered and amended as Section R12-7-106 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-107. Spacing of Wells**

**A.** Every well drilled for oil shall be located on a drilling unit consisting of approximately 80 contiguous surface acres within two governmental quarter-quarter sections or lots having one side in common, upon which there is not located, and of which no part is attributed to, any other well completed in or drilling to, the same pool.

1. In areas not covered by United States Public Land Surveys, the oil drilling unit shall consist of an area bounded by four sides intersecting at angles of not less than 85 degrees or more than 95 degrees. The unit shall contain at least 76 contiguous surface acres and its maximum dimension shall not exceed 3,000 feet.
2. No well drilled for oil shall be located closer than 330 feet to any boundary of the drilling unit or closer than 330 feet to the shortest center line of the drilling unit.
3. No well drilled for oil shall be located within a quarter-quarter section or lot having one side in common with another quarter-quarter section or lot upon which there is located a well completed in or drilling to the same pool.

**B.** Every well drilled for gas shall be located on a drilling unit consisting of approximately 640 but not less than 600 contiguous surface acres within one governmental section upon which there is not located, and of which no part is attributed to, any other well completed in or drilling to the same pool.

1. In areas not covered by United States Public Land Surveys, the gas drilling unit shall consist of an area bounded by four sides intersecting at angles of not less than 85 degrees or more than 95 degrees. The unit shall contain at least 600 contiguous surface acres and its maximum dimension shall not exceed 8,500 feet.
2. No well drilled for gas shall be located closer than 1,660 feet from any boundary of the drilling unit.

**C.** Every well drilled for geothermal resources shall be located on a drilling unit approved or as modified by the Commission. The Commission may require modification to minimize well interference and provide the necessary volume of geothermal resources for the intended use, to protect correlative rights, and to protect the environment.

**D.** If the operator drills a horizontal segment, that horizontal segment shall be located:

1. At least 330 feet from the boundary of the spacing unit in the case of an oil well;
2. At least 1,660 feet from the boundary of the spacing unit in the case of a gas well; and

3. As approved or modified by the Commission in the case of a geothermal well.

**E.** The Commission may grant exceptions to the regular locations specified in subsections (A), (B), and (C) only after notice and hearing.
1. Applications for exception shall fully state the reasons why the exception is necessary and shall include a plat prepared and certified by a registered surveyor bearing the surveyor's certificate number showing all other completed, drilling, and permitted wells on the property and all adjoining surrounding properties and wells.
2. Exceptions shall be granted only after the operator provides by certified mail a copy of the application to all adjoining lessees, and only after the Commission deter mines in a duly noted public hearing that the application is valid.
3. The Commission may grant an exception location without notice or hearing when topography prohibits drilling at a regular location on the drilling unit.
4. If an existing well's classification changes due to its recompletion or due to a change in the nature of the product being produced, the Commission may approve an irregular location application with supporting data and ten days' notice and hearing, provided that the operator furnish the Commission with proof of mailing of a copy of the application to all operators within a one-mile radius of the acreage to be dedicated.

**F.** In order to prevent waste, the Commission may, after notice and hearing, fix different spacing requirements and require lesser or greater acreage for drilling units in any specific oil, gas, or geothermal resource pool notwithstanding the provisions of subsections (A), (B), and (C).

**G.** The Commission may order pooling and integration of interests pursuant to A.R.S. §§ 27-505 and 27-666.

**Historical Note**
Former Rule 106; Former Section R12-7-107 renumbered and amended as Section R12-7-108, former Section R12-7-106 renumbered and amended as Section R12-7-107 effective September 29, 1982 (Supp. 82-5). Correction, paragraph (1) "No well drilled for oil shall be located within the bounds of a quarter-quarter section or lot . . ." (Supp. 82-6). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-108. Pit for Drilling Mud and Drill Cuttings**

**A.** Each operator shall maintain an adequate supply of drilling mud to confine oil, gas, or water to its native stratum during the drilling of any well and shall provide, before drilling is commenced, an adequate pit, either earthen or portable, for the drilling mud or the accumulation of drill cuttings.

**B.** An earthen pit used for drilling, deepening, testing, reworking, or fracturing shall be constructed of or sealed with an impervious material and shall be maintained to prevent escape of any contained substance. Earthen pits shall be fenced on all sides at all times.

**C.** Earthen pits shall be constructed and maintained to prevent the entrance of outside runoff water and the fluid level in earthen pits shall be kept at all times at least 18 inches below the lowest point of the embankment.

**D.** Any mud contained in an earthen pit shall be water-based and contain no more than one pound per barrel of thinner for each 25 pounds per barrel of barite or hematite. Mud containing chromium lignosulfonate, ferrochrome lignosulfonate or other chromium compounds shall not be used.

**E.** Drilling mud shall be disposed of by either recycling or commercial off-site disposal. Mud described in subsection (D) may be disposed of by evaporation and subsequent leveling of the pits.

**Historical Note**
Former Rule 107; Former Section R12-7-108 renumbered and amended as Section R12-7-109, former Section R12-7-107 renumbered and amended as Section R12-7-108 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-109. Repealed**

**Historical Note**
Former Rule 108; Former Section R12-7-109 renumbered and amended as Section R12-7-110, former Section R12-7-108 renumbered and amended as Section R12-7-109 effective September 29, 1982 (Supp. 82-5). Repealed effective January 19, 1994 (Supp. 94-1).

**R12-7-110. Surface Casing Requirements**

**A.** Surface casing shall be set at a sufficient depth to protect and isolate all known or reasonably estimated freshwater zones and to prevent blowouts or uncontrolled flows. The surface casing shall:
1. Be of sufficient size to permit the use of an intermediate string or strings of casing;
2. Be set in or through an impervious formation and shall be cemented by the pump and plug, displacement, or other method approved by the Commission;
3. Be cemented back to surface either during the primary cement job or by remedial action; and
4. Have API-approved centralizers on the bottom three joints as a minimum.

**B.** Cement shall be allowed to set a minimum of 12 hours under the lowest necessary pressure before drilling the cementing plugs or initiating tests.

**C.** Surface casing shall be pressure tested for at least 30 minutes to 70% of internal yield pressure or one psi per foot of casing depth, whichever is less. If a drop of more than 10% of the test pressure should occur, the casing shall be considered defective and corrective measures shall be applied. In wells drilled with cable tools, casing may be tested by bailing the well dry. The hole shall remain satisfactorily dry for one hour before commencing further operations. Results of the above test and any remedial action shall be reported in writing to the Commission within 15 days following the test.

**D.** The operator of a well shall notify the Commission at least 48 hours before setting surface casing so that a representative of the Commission may witness all or a part of the operations required in this Section.

**Historical Note**
Former Rule 109; Former Section R12-7-110 renumbered and amended as Section R12-7-111, former Section R12-7-109 renumbered and amended as Section R12-7-110 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-111. Intermediate and Production Casing and Tubing Requirements**

**A.** All producing wells shall be completed with production casing set directly above or through the producing interval and cemented by the pump and plug method, or other method approved by the Commission, to protect the zones to be produced. An intermediate string of casing may be required to seal off all potentially productive, lost circulation, and abnormally pressured zones that may be encountered in the well, except those to be produced. The Commission may require casing strings to be cemented from the maximum depth of the

casing to at least 50 feet inside the previously run string of casing. For liners, a minimum of 100 feet of overlap between a string of casing and the next larger casing is required.

**B.** Strings of casing shall stand cemented for at least 12 hours before drilling out the cementing plugs or initiating such tests as the Commission may require.

**C.** Strings of intermediate and production casing shall be pressure tested to 70% of the manufacturer's rated internal yield pressure or one psi per foot of casing depth, whichever is less. In cases where combination strings utilizing casing of varied grades and weights are used, the above test pressures shall apply to the lowest pressure rated component used. If pressure declines more than 10% in 30 minutes, the casing shall be considered defective and corrective measures shall be applied.

1. In wells drilled with cable tools, casing may be tested by bailing the well dry, in which case the hole shall remain satisfactorily dry for at least one hour before commencing further operations on the well. Results of the above test and any remedial action shall be reported in writing to the Commission within 15 days following the test.

**D.** All flowing oil wells shall have tubing set as near the bottom as practical with tubing perforations not more than 250 feet above the top of the zone to be produced. Wells may be completed with small-diameter casing, which is generally understood in the industry to be "slim hole" or "tubingless" completions, in lieu of tubing.

**E.** The operator shall notify the Commission at least 48 hours before setting any casing string so that a representative of the Commission may witness all or a part of the operations required in this Section.

**Historical Note**

Former Rule 110; Former Section R12-7-111 renumbered and amended as Section R12-7-112, former Section R12-7-110 renumbered and amended as Section R12-7-111 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-112. Defective Casing or Cementing**

**A.** The operator shall take immediate steps to correct the casing condition of any well that may cause, or is causing, underground waste of oil, gas, or geothermal resources or contamination of fresh waters. These steps shall restore the integrity of the casing to the standards set in R12-7-110(C) and R12-7-111(C).

**B.** The operator shall report the corrective actions taken in writing to the Commission within 15 days of the completion of the work. If the condition of the casing cannot be corrected, the well shall be plugged and abandoned in compliance with R12-7-127.

**Historical Note**

Former Rule 111; Former Section R12-7-112 renumbered and amended as Section R12-7-113, former Section R12-7-111 renumbered and amended as Section R12-7-112 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-113. Blowout Prevention and Related Well-control Equipment**

**A.** When drilling in areas where pressures are unknown or high pressures do or are likely to exist, a blowout preventer, control head and related lines, and connections necessary to control the pressures and to keep the well under control at all times shall be installed as soon as the surface casing is set.

**B.** Upon installation, all ram-type blowout preventers and related equipment shall be pressure tested to the lesser of the manufacturer's full working pressure rating of the equipment, 70% of the minimum internal yield pressure of any casing subject to test, or one psi per foot of the last casing string depth. Annular or bag-type preventers shall be tested to the lesser of 1000 psi or 50% of full working pressure on installation. The blowout preventer and related equipment shall be tested:

1. After each string of casing is set in the well,
2. Not less than once each 14 days from each control station, and
3. Following repairs that require disconnection of any pressure seal in the assembly. Only the component repaired or replaced needs be tested unless alteration or repair occurs at a normal full blowout preventer test period.

**C.** The operator shall maintain records of the tests required in this Section until the well is completed and shall submit copies of these records to the Commission if required.

**Historical Note**

Former Rule 112; Former Section R12-7-113 renumbered and amended as Section R12-7-114, former Section R12-7-112 renumbered and amended as Section R12-7-113 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-114. Recovery of Casing**

Recovery of inside or outside strings of casing is prohibited unless written approval is obtained from the Commission. Approval shall be given only for wells where mudding and plugging operations can be carried out safely and the well abandoned in compliance with R12-7-127.

**Historical Note**

Former Rule 113; Former Section R12-7-114 renumbered and amended as Section R12-7-115, former Section R12-7-113 renumbered and amended as Section R12-7-114 effective September 29, 1982 (Supp. 82-5). Section repealed, new Section adopted effective January 19, 1994 (Supp. 94-1).

**R12-7-115. Deviation of Hole and Directional Drilling**

**A.** No drilling well may be intentionally deviated from its normal vertical course unless the operator shall first file application and obtain approval from the Commission after notice and hearing. The normal vertical course of a well is defined by a tolerance wherein the maximum deviation of the well does not exceed a 100-foot radius from the surface location. Deviation from the vertical for short distances is permitted in the drilling of a well without special approval only to straighten the hole, sidetrack junk, or correct other mechanical difficulties.

**B.** An application for directional drilling shall include:

1. The name, address, and phone number of the operator;
2. The field name, lease name, well number, state permit number, reservoir name, and county where the proposed well is located;
3. A plat or sketch showing the distance from the surface location to section and lease lines and to the target location within the intended producing interval;
4. The reason for the intentional deviation; and
5. The signature of the operator.

**C.** The operator of any well capable of production and whose producing interval or any portion thereof is located 330 feet or less in the case of an oil well or 1,660 feet or less in the case of a gas well from the boundary of any drilling unit shall run a directional survey before running the production casing.

**D.** In order to ensure compliance with this Section, the Commission may require the operator to run a directional survey of any hole at the operator's expense. The Commission may require an operator to run a directional survey of any hole at the request of an offset operator at the expense and risk of the off-

set operator unless the survey shows that the well is completed at a point outside the drilling unit, or at an unauthorized point.

**E.** Within 30 days following the completion of a directionally drilled well, the operator shall file with the Commission a complete angular deviation and directional survey of the well obtained by a well survey company.

**F.** Nothing in these rules shall be interpreted to permit the drilling of any well in such manner that it crosses the drilling unit lines, except by approval obtained after notice and hearing.

**Historical Note**

Former Rule 114; Former Section R12-7-115 renumbered and amended as Section R12-7-116, former Section R12-7-114 renumbered and amended as Section R12-7-115 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-116. Multiple Zone Completions**

**A.** Completions to include production from more than one common source of supply from a single well are prohibited except as authorized by the Commission after notice and hearing. After notice and hearing, the Commission shall maintain a list of zones or reservoirs, by fields, for which multiple completions have been authorized.

**B.** Operators shall file an application for multiple completion with the Commission and shall demonstrate the method to be used to keep the production streams separate. The application shall be accompanied by:

1. An electrical log or other acceptable log with tops and bottoms of formations or producing zones and perforated intervals shown and marked;
2. A diagrammatic sketch of the multiple completion installation indicating make, type, and setting depths of packer or packers;
3. A plat showing the location of the well and all offset wells and the names and addresses of operators of all leases offsetting acreage dedicated to applicant's well; and
4. Proof of mailing of application for multiple completion to all offset operators.

**C.** The Commission may approve subsequent applications for multiple completion of the same zones or reservoirs in a field administratively without a hearing, provided that:

1. The applicant can show that the Commission has approved and listed the zones or reservoirs as required in subsection (A);
2. The subsequent application is filed as required in subsection (B); and
3. The Commission receives no protest to the application after a 15-day holding period. A hearing shall be called if a protest is received.

**D.** Within 15 days of setting the final packer or packers, the operator shall file a report with the Commission identifying the well and its location showing the make, type, and depth set of each packer and the signature of the supervisor of the work. This report shall include the results of a packer leakage test and detail for each separate common source of supply, its stabilized shut-in pressure, producing pressure, and the simultaneous shut-in pressure on each other separate common source of supply. The operator shall notify the Commission at least 48 hours in advance of performing the tests required in this subsection.

**E.** Every operator of a multi-completed well shall operate, produce, and maintain the well to prevent commingling of production from the separate sources of supply. The Commission may require any multi-completed well to be tested at any time to demonstrate the effectiveness of the separation of sources of supply. These tests may be witnessed by representatives of the Commission and by offset operators.

**Historical Note**

Former Rule 115; Former Section R12-7-116 renumbered and amended as Section R12-7-117, former Section R12-7-115 renumbered and amended as Section R12-7-116 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-117. Artificial Stimulation of Oil and Gas Wells**

**A.** An operator shall report the artificial stimulation of any well to the Commission in writing within 15 days of the stimulation showing the type of stimulation, the amounts and types of materials used, stimulation pressures applied, and the flow and pressure results before and after stimulation.

**B.** If the artificial stimulation of a well results in any damage to the producing formation, a freshwater formation, casing, or casingseat that permits communication between fluid-bearing zones, the operator shall immediately notify the Commission and proceed with diligence to correct the damage. If the artificial stimulation results in irreparable damage to the well, the operator shall plug and abandon the well pursuant to R12-7-127.

**Historical Note**

Former Rule 116; Former Section R12-7-117 renumbered and amended as Section R12-7-118, former Section R12-7-116 renumbered and amended as Section R12-7-117 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1). Amended effective June 5, 1998 (Supp. 98-2).

**R12-7-118. Operations in Hydrogen Sulfide Environments**

**A.** When drilling, redrilling, deepening, or plugging back operations in areas where the formations to be penetrated are known to contain or are expected to contain hydrogen sulfide gas ($H_2S$) in excess of 10 ppm and in areas where the presence or absence or $H_2S$ is unknown, the operator shall contract the services of an approved $H_2S$ safety company to be on location at the known or expected depths.

**B.** A written contingency plan providing details of actions to be taken to alert and protect operating personnel and members of the public in the event of an accidental release of $H_2S$ gas shall be submitted to the Commission as part of the initial application for a permit to drill or as a sundry notice.

**Historical Note**

Former Rule 117; Former Section R12-7-118 renumbered and amended as Section R12-7-119, former Section R12-7-117 renumbered and amended as Section R12-7-118 effective September 29, 1982 (Supp. 82-5). Amended effective January 19, 1994 (Supp. 94-1).

**R12-7-119. Wellhead and Lease Equipment**

**A.** The operator shall install and maintain valves, fittings, and wellhead connections that

1. Have a rated working pressure equivalent to at least 100% of the calculated or known surface pressure to which they may be subjected from the producing zone;
2. Allow well production, productivity, deliverability, and transient pressure tests;
3. Permit pressures to be obtained on both casing and tubing; and
4. Control the flow of the oil, gas, or geothermal resources on a flowing well.

**B.** The operator shall produce flowing oil wells into tanks equipped with high-low pressure and high-low level shut-in controls and shall install a safety valve that automatically

closes on the wellhead in the event of surface production equipment malfunctions.

**C.** The operator shall equip artificial lift wells with wellhead safety sensors to shut off the source of power in the event of abnormally high or low flowline pressures.

**Historical Note**

Former Rule 118; Former Section R12-7-119 renumbered and amended as Section R12-7-120, former Section R12-7-118 renumbered and amended as Section R12-7-119 effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-120. Notification of Fire, Leaks, Spills, and Blowouts**

**A.** Each operator shall notify the Commission within 24 hours of any fire, break, leak, spill, overflow, or blowout that occurs at any oil, gas, or geothermal drilling, producing, or transportation facility, or at any injection, disposal, or storage facility.

**B.** Each operator shall file a final written report within 15 days of resolving incidents described in subsection (A) giving the location by quarter-quarter section, township, and range; date and time of occurrence; specific nature and cause of the incident; resultant damage; action taken to correct the situation and prevent its reoccurrence; and losses of hydrocarbons or geothermal resources.

**Historical Note**

Former Rule 119; Former Section R12-7-120 renumbered and amended as Section R12-7-121, former Section R12-7-119 renumbered and amended as Section R12-7-120 effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-121. Well Completion and Filing Requirements**

**A.** For the purpose of this rule only, a well shall be determined to be completed when it is capable of production, has been temporarily abandoned as provided for in R12-7-125, or has been plugged and abandoned as provided for in R12-7-126 and R12-7-127.

**B.** The operator shall file a completion report with the Commission within 30 days after the completion of a well. The completion report shall contain a description of the well and lease, the casing record, the tubing record, the liner record, the perforation record, the stimulation and cement squeeze record, and data on the initial production. Other well data, including all logs, tests, and surveys, shall be filed with the completion report or within 30 days after the completion of the well.

**C.** The operator shall furnish samples of all cores and cuttings, at a maximum interval of 10 feet, to the Commission within 30 days of removing the drilling rig from the hole. All samples for the Commission shall be handled as follows:

1. All samples shall be washed and dried.
2. Approximately 3 tablespoons of each sample shall be placed in an envelope showing the identification of the well from which the sample originated, the location of the well, the Commission's permit number, and the depth at which the sample was taken.
3. Samples shall be packaged in boxes for protection and shall be shipped prepaid to:

   Oil & Gas Program Administrator
   Arizona Geological Survey
   416 West Congress, Suite 100
   Tucson, AZ 85701
4. Core samples may be furnished in chips and packed and shipped as specified in subsections (C)(2) and (3).

**D.** Upon written request by the operator, the Commission shall keep any well information required in this Section confidential for a period not to exceed 6 months from the completion date of a stratigraphic or exploratory hole and for a period not to exceed 2 years from the completion date of a geothermal resources well.

**Historical Note**

Former Rule 120; Former Section R12-7-121 renumbered and amended as Section R12-7-122, former Section R12-7-120 renumbered and amended as Section R12-7-121 effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-122. Recompletion and Routine Maintenance Operations**

**A.** After a well has been completed, it shall not be deepened, redrilled, plugged back, reworked, or recompleted in a different zone, without prior approval by the Commission of a written application showing the character of the proposed work and the time it will begin. The Commission shall notify the applicant in writing whether the proposed work is approved or disapproved.

**B.** In the case of an emergency, an application may be made by electronic communication, and the Commission may by electronic communication authorize the work; however, written application required in subsection (A) shall be filed with the Commission within 10 days after emergency authorization is given, even though the work has already been commenced or completed. The Commission shall confirm the emergency authorization in writing upon receipt of the written application.

**C.** Written approval from the Commission is not required on acidizing, fracturing, and reperforating, or other routine well operations designed to restore or maintain production.

**D.** Within 15 days following the completion of any work described in this Section, the operator shall file a written report with the Commission identifying the well and fully describing the work performed. If the well is recompleted, a completion report shall be filed as required by R12-7-121.

**Historical Note**

Former Section R12-7-121 renumbered and amended as Section R12-7-122 effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-123. Reserved**

**R12-7-124. Reserved**

**R12-7-125. Temporary Abandonment**

**A.** When drilling, injection, or production operations have been suspended for 60 days, the well shall be plugged and abandoned as required in R12-7-126 and R12-7-127 unless the operator obtains written permission for temporary abandonment from the Commission. On drilling wells, the drilling rig shall not be removed from the hole until written permission for temporary abandonment is obtained from the Commission. Permission granted shall be for a period not to exceed 1 year. One-year extensions may be granted.

**B.** When requesting temporary abandonment, the operator shall file with the Commission a description of the mechanical condition of the well and a current corrosion, caliper, or cement bond log. The Commission shall not approve temporary abandonment or an extension unless the operator can show that the mechanical condition of the well will prevent damage to the producing zone, prevent contamination of fresh waters or other natural resources, and prevent leakage of any substance at the surface. The Commission may require a mechanical integrity test of the casing before approving or extending temporary abandonment.

**C.** Upon expiration of the period of temporary abandonment or an extension, the well shall be plugged and abandoned, unless the operator can demonstrate to the Commission why the well should not be plugged and abandoned, and a further extension issued.

**D.** Before re-entering any temporarily abandoned well, the operator shall give the Commission at least 10 days' written notice detailing the proposed activity.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**R12-7-126. Application to Plug and Abandon**

**A.** Before abandoning any well, the operator shall submit an application to plug and abandon to the Commission and obtain approval. The application shall set forth the name and location of the well, the mechanical condition of the well, the productive zone and latest production, and a complete description of the proposed work. The plan shall provide for the protection of all formations containing usable-quality water, oil, gas, or geothermal resources.

**B.** In the case of a drilling well or an emergency, the application may be made by electronic communication, and the Commission may by electronic communication authorize the work; however, the operator shall file a written application within 10 days after the emergency authorization is given even though the work has already been commenced or completed. The Commission shall confirm the emergency authorization in writing upon receipt of the written application.

**Historical Note**
Former Rule 201; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-127. Plugging Methods and Procedures**

**A.** Before abandoning any well, the operator shall submit an application to plug and abandon to the Commission for approval as required in R12-7-126. All down-hole plugging shall be conducted through drill pipe or tubing, unless otherwise approved by the Commission.

**B.** Open hole
1. A cement plug shall be placed to extend at least 50 feet below the bottom, except as limited by total depth or plugged back total depth, to 50 feet above the top of any zone containing fluid with a potential to migrate, any zone of lost circulation, and any zone containing potentially valuable minerals, including noncommercial hydrocarbons, coal, and oil shale.
2. All freshwater zones shall be plugged with a continuous cement plug which shall extend from at least 50 feet below to at least 50 feet above the freshwater zone, or a 100-foot plug shall be centered across the base of the freshwater zone and a 100-foot plug shall be centered across the top of the freshwater zone.
3. Open hole below the shoe of cemented casing shall be plugged with cement which shall extend from at least 50 feet below to at least 50 feet above the shoe.

**C.** Cased hole
1. A cement plug shall be placed opposite all open perforations and extend to a minimum of 50 feet below, except as limited by total depth or plugged back total depth, to 50 feet above the perforated interval. In lieu of the cement plug, a bridge plug may be placed within 50 to 100 feet above the open perforations and followed by at least 50 feet of cement.
2. If any casing is cut and recovered, a cement plug shall be placed to extend at least 50 feet above and below the stub.
3. No annular space that extends to the surface shall be left open to the drilled hole below. If this condition exists, a minimum of the top 100 feet of each annulus shall be plugged with cement.

**D.** Plugging mud having the proper weight and consistency to prevent movement of other fluids into or within the bore hole shall be placed across all intervals not plugged with cement. In the absence of other information at the time plugging is approved, plugging mud shall be made up with a minimum of 15 pounds per barrel of sodium bentonite and a nonfermenting polymer, have a minimum consistency of 9 pounds per gallon, a minimum viscosity of 50 seconds per quart, and mixed with fresh water.

**E.** A cement surface plug of at least 50 feet shall be placed in the smallest casing which extends to the surface. The top of this plug shall be placed as near the eventual casing cut-off point as possible.

**F.** The abandoned well shall be marked by a piece of metal pipe not less than 4 inches in diameter securely set in cement and extending at least 4 feet above the general ground level. The well location and identity shall be permanently inscribed as required in R12-7-106(A). An abandoned well location on tilled or otherwise unique land shall be marked in a manner approved by the Commission.

**G.** The drill site of an abandoned well shall be restored as nearly as possible to its natural state, to the satisfaction of the Commission. All pits shall be filled and all equipment and debris shall be removed from the location.

**H.** The operator shall notify the Commission at least 48 hours before starting abandonment operations to allow a representative of the Commission to witness the operations required in this Section. To ensure the integrity or placement of any plug, the representative may order the plug to be tested.

**I.** Within 15 days after the plugging of any well, the operator shall file with the Commission a plugging record setting forth in detail the method used in plugging the well, including the casing record; the size, kind, and depth of plugs used; and the name and depth interval of each formation containing fresh water, oil, gas, or geothermal resources.

**J.** Seismic shot holes
1. All seismic shot holes shall be plugged and abandoned within 30 days of firing.
2. Seismic shot holes which do not encounter freshwater zones shall be filled with a high-grade bentonite slurry or some other comparable plugging material as approved by the Commission.
3. Seismic shot holes which do encounter freshwater zones shall be plugged with cement in accordance with the applicable provisions of subsections (B) and (D).
4. Seismic shot-hole locations shall be restored in accordance with subsection (G) and the operator shall file a plugging record in accordance with subsection (I).

**Historical Note**
Former Rule 202; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-128. Stratigraphic, Core, and Seismic Holes**

**A.** Any hole drilled for stratigraphic, core, or seismic purposes shall comply with all rules in this Chapter pertaining to the drilling of a well except the spacing provisions of R12-7-107.

**B.** Each hole drilled for stratigraphic, core, or seismic purposes shall be plugged in accordance with R12-7-126 and R12-7-127. The operator of a stratigraphic or core hole shall submit samples and cores and file a completion report in accordance with R12-7-121.

**Historical Note**
Former Rule 203; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-129. Wells to be Used for Fresh Water**

**A.** The landowner, the landowner's agent, or lessee may use any well or exploratory hole as a freshwater well provided that:
1. Written approval has been obtained from the Arizona Department of Water Resources;
2. The operator has plugged the well in accordance with R12-7-127 to a point immediately below the freshwater strata; and
3. The landowner, the landowner's agent, or lessee assumes responsibility for the well and its final plugging in a signed and notarized water-well acceptance form provided by and filed with the Commission.

**B.** Filing of the notarized water-well acceptance form with the Commission shall constitute the obligation of the landowner, the landowner's agent, or lessee to plug the well in compliance with the provisions of the State Water Code, A.R.S. Title 45, Chapter 1.

**C.** Upon filing the notarized water-well acceptance form with the Commission, the Commission shall notify the bonding company and operator in writing so that the bond may be cancelled or made no longer effective with respect to that well.

**Historical Note**
Former Rule 204; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-130. Reserved**

**R12-7-131. Reserved**

**R12-7-132. Reserved**

**R12-7-133. Reserved**

**R12-7-134. Reserved**

**R12-7-135. Gas-oil Ratio and Potential Tests**

**A.** Each operator shall conduct a gas-oil ratio test between 5 and 15 days after the completion or recompletion of any well located in a pool which contains both oil and gas. The average daily oil production, the average daily gas production, and the average gas-oil ratio shall be recorded.

**B.** The results of the gas-oil ratio test shall be reported in writing to the Commission within 15 days after completion of the test.

**C.** Each operator shall conduct a potential test within 30 days following the completion or recompletion of any well for the production of oil. The results of this test shall be reported in writing to the Commission within 15 days after completion of the test.

**Historical Note**
Former Rule 301; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-136. Subsurface Pressure Tests and Reservoir Surveys**

**A.** Each operator shall conduct a test, within 30 days after completion, to determine the reservoir pressure on the discovery well of any new pool. The test shall be made after the well has been shut-in for at least 24 hours, and the results shall be reported in writing to the Commission within 15 days after the completion of the test.

**B.** The Commission may require subsurface pressure measurements on a number of wells in any pool to provide data to determine reservoir characteristics. The survey shall be made by the operator and shall provide a description of the test method and results including fluids, temperature, and pressure data and may require supervision by a qualified agent of the Commission. The results shall be reported in writing to the Commission within 15 days of the completion of the survey.

**Historical Note**
Former Rule 302; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-137. Commingling of Production from Pools**

**A.** Unless authorized by the Commission, each pool shall be produced as a single common reservoir, with the wells completed, cased, maintained, and operated as the producing media for that pool. Oil production from each pool shall at all times be segregated into separate, identified tanks. The commingling of production from different pools is prohibited, unless authorized by order of the Commission after notice and hearing.

**B.** The Commission may approve commingling of production upon demonstration by the applicant that such commingling shall not cause waste of reservoir energy or diminish recovery of the resource. Application for approval of commingling shall include the following:
1. Electric or porosity log with tops and bottoms of formations or producing zones and perforated intervals shown and marked;
2. Diagrammatic sketch of the proposed well structure, including make, type and setting depths of packers;
3. The reservoir pressure for each zone or formation pro posed for commingling, the specific gravity and BTU content of the gas if the zone produces gas, and the API gravity and gas-oil ratio of the oil if the zone produces oil;
4. Plat showing the location of the well and all offset wells, and a list of the names and addresses of operators of all leases offsetting the acreage dedicated to the applicant's well;
5. Waiver consenting to the proposed commingling from each offset operator, or in lieu thereof, copies of letters requesting such waiver; and
6. Proof of mailing of notice of application for commingling to all offset operators.

**C.** The first application for commingling of pools in a field shall be approved by the Commission only after notice and hearing. Subsequent applications, completed as required in subsection (B), for commingling of the same zones in the same field may be approved administratively if, after a 15-day holding period, there are no protests from offsetting operators.

**Historical Note**
Former Rule 303; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-138. Casinghead Gas**

**A.** All casinghead gas produced and sold or transported away from a lease, except amounts of flare gas, shall be metered and reported monthly in writing to the Commission in standard Mcf and gallons of liquids per Mcf. If the casinghead gas is sold as supply stock for a gasoline plant, the gallons of liquids per Mcf shall be reported. The operator of a lease shall not be required to measure the exact amount of casinghead gas produced and used for fuel purposes in the development and normal operation of the lease.

**B.** Pending arrangements for disposition of some useful purpose, all casinghead gas that is authorized to be vented shall be

burned, and the estimated volume reported monthly as required by R12-7-161.

**Historical Note**
Former Rule 304; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-139. Use of Vacuum Pumps**

**A.** The use of any device for the purpose of putting a vacuum on any stratum containing oil, gas, or geothermal resources is prohibited unless authorized by the Commission.

**B.** The Commission may, after notice and hearing, authorize the use of vacuum pumps if the applicant can show that use of the vacuum will not create waste or infringe on correlative rights.

**Historical Note**
Former Rule 305. Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-140. Pollution, Surface Damage and Noise Abatement**

**A.** Each operator of any well, production facility, gasoline plant, gas plant, or pipeline shall conduct operations in a manner that will prevent surface or subsurface pollution.

**B.** During completion operations on any well, no oil, gas, salt water, fracturing fluid or other substance shall be permitted to pollute any waters, surface or subsurface.

**C.** In swabbing and bailing operations or purging a well, all substances removed from the bore hole shall be placed in a pit or tank and shall not be allowed to pollute any surface or subsurface waters.

**D.** All wellhead connections, surface equipment, lease flow lines, and tank batteries shall be maintained at all times to prevent escape of oil, gas, produced water, or other substances.

**E.** All fires, leaks, or blowouts shall be reported to the Commission in accordance with R12-7-120. Pits shall be constructed and operated in accordance with R12-7-108.

**F.** Each operator shall minimize noise when conducting air drilling operations, when the well is allowed to produce while drilling, or as a result of the noise created by expanding gases. The method and degree of noise abatement shall be approved by the Commission.

**Historical Note**
Former Rule 306. Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-141. Renumbered**

**Historical Note**
Former Rule 307; Language transferred and amended, see Section R12-7-176 (Supp. 82-5).

**R12-7-142. Measurement of Oil**

Oil or condensate shall not be transported from a lease until it has been measured. Each transporter shall file a monthly report of the amount of oil or condensate transported from the lease as required by R12-7-185.

**Historical Note**
Former Rule 308; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-143. Oil Tanks, Fire Walls, and Fire Hazards**

**A.** Oil shall not be stored or retained in an earthen reservoir or an open receptacle. The Commission may require dikes or fire walls to protect life, health, or property. All dikes or fire walls shall be erected and continuously maintained around all permanent oil tanks or batteries that are within the corporate limits of any city, town or village, or where such tanks are closer than 150 feet to any highway or inhabited dwelling, or closer than 1,000 feet to any school or church. The capacity of the dike or firewall shall be 1 1/2 times the capacity of the tank or tanks that it surrounds. The reservoir so formed within the dike shall be kept free from vegetation, water and oil.

**B.** Anything that might constitute a fire hazard, including potentially flammable items and reckless behavior such as smoking, shall be moved at least 150 feet from the well, tanks, separator, or other equipment.

**Historical Note**
Former Rule 309. Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-144. Reserved**

**R12-7-145. Reserved**

**R12-7-146. Reserved**

**R12-7-147. Reserved**

**R12-7-148. Reserved**

**R12-7-149. Reserved**

**R12-7-150. Capacity Tests of Gas Wells and Geothermal Wells**

**A.** The operator of a producing gas well shall determine its open-flow capacity within 30 days following completion. Additional tests shall be taken as requested by the Commission. When a pipeline connection is available, gas wells shall not be tested by open-flow method, but the open-flow capacity shall be determined by the multipoint or single-point back-pressure test method.

**B.** The Commission may require tests to determine the quantity and quality of geothermal resources or reservoir energy.

**C.** The results of the tests required in this Section shall be reported in writing to the Commission within 15 days after the completion of the test.

**Historical Note**
Former Rule 401; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-151. Measurement of Gas from Gas Wells and Geothermal Resources**

**A.** All gas produced for whatever purpose in gaseous form from gas wells shall be accounted for by metering as approved by the Commission. If the gas is sold, the purchaser shall report the volume purchased as required by R12-7-186. If the gas is delivered to a transportation facility, the transporter shall report the volume transported as required by R12-7-185. The operator shall report the volume produced as required by R12-7-161.

**B.** Each operator of a geothermal lease shall measure the quantity and quality of all production in accordance with the standard practices, procedures, and specifications generally used in the industry. The operator shall report the production as required in R12-7-161 and the purchaser shall file a report as required in R12-7-186.

**Historical Note**
Former Rule 402; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-152. Utilization of Gas**

**A.** No gas from any completed gas well shall be:

1. Permitted to escape into the air except for testing when no pipeline connection is available.

2. Used expansively in engines or pumps and then vented, or
3. Used to gas-lift in oil wells unless all gas produced from such gas-lift operations is processed in a gasoline plant, and the residue gas is used in the manufacture of carbon black or for some other profitable use.

**B.** Utilization of gas in the manufacture of carbon black may be made only if approved by the Commission, after notice and hearing, based on a finding that a more profitable use is not available or will not be available in a reasonable time.

**Historical Note**
Former Rule 403. Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-153. Non-hydrocarbon Gas**
The rules of this Chapter shall also apply to helium, carbon dioxide, and any other non-hydrocarbon gas.

**Historical Note**
Former Rule 404. Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-154. Reserved**

**R12-7-155. Reserved**

**R12-7-156. Reserved**

**R12-7-157. Reserved**

**R12-7-158. Reserved**

**R12-7-159. Reserved**

**R12-7-160. Regulation of Production**
If the Commission determines that oil, gas, or geothermal resources production in the state is causing waste, the Commission shall limit, allocate, and apportion the total amount of oil, gas, or geothermal resources which may be produced.

**Historical Note**
Former Rule 501; Amended effective September 29, 1982. See also Section R12-7-170 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-161. Producer's Monthly Report**

**A.** Each operator shall file a producer's monthly report for each producing lease for each calendar month, setting forth the operator's name, each well's lease name or number, well number, state permit number, the actual amounts of oil, gas, water, or geothermal resources produced, the number of days each well produced, and the disposition of the produced oil, gas, water, or geothermal resources. The report shall be filed on or before the 25th day of the next succeeding month.

**B.** If a well is off production for a period exceeding 30 days, the Commission shall be notified in writing with the reasons given.

**Historical Note**
Former Rule 502; Amended effective September 29, 1982. See also Section R12-7-171 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-162. Reserved**

**R12-7-163. Reserved**

**R12-7-164. Reserved**

**R12-7-165. Reserved**

**R12-7-166. Reserved**

**R12-7-167. Reserved**

**R12-7-168. Reserved**

**R12-7-169. Reserved**

**R12-7-170. Renumbered**

**Historical Note**
Former Rule 601; Language transferred and amended, see Section R12-7-160 (Supp. 82-5).

**R12-7-171. Renumbered**

**Historical Note**
Former Rule 602; Language transferred and amended, see Section R12-7-161 (Supp. 82-5).

**R12-7-172. Reserved**

**R12-7-173. Reserved**

**R12-7-174. Reserved**

**R12-7-175. Injection Wells Including Enhanced Recovery, Disposal, and Storage Wells**

**A.** The following injection wells used for enhanced recovery, disposal, or storage shall require a permit from the Commission:
1. Class II injection wells
   a. Saltwater disposal wells: wells used to return salt water associated with oil and gas production to the subsurface.
   b. Enhanced oil recovery wells: wells used to inject salt water, gases, enhanced waters, and steam in order to maintain and extend oil production;
   c. Hydrocarbon storage wells: wells used for the underground storage of crude oil, liquified petroleum gas (LPG), and other liquid hydrocarbon products in naturally occurring rock formations.
2. Other injection wells
   a. Geothermal injection wells: Class V wells used to reinject groundwater or geothermal fluids that are used in or are associated with the production of geothermal energy;
   b. Other wells: wells used for the underground storage of any hydrocarbons or nonhydrocarbons that are gaseous at standard temperature and pressure, wells used to dissolve salt to create a cavity to be used for underground storage, and wells used to dispose of brine produced in the course of creating a solution-mined salt cavity.

**B.** In addition to being subject to the applicable provisions of this Chapter, the wells listed in subsection (A) shall be subject to the following specific regulation:
1. Injection wells listed in subsections (A)(1)(a) and (b) and (A)(2)(a) shall be regulated by R12-7-176, R12-7-178, and R12-7-179.
2. Injection wells listed in subsections (A)(1)(c) and (A)(2)(b) shall be regulated by R12-7-176, R12-7-178, R12-7-179, R12-7-180, R12-7-181, and R12-7-182.

**C.** No permits for injection wells other than those described in this Section shall be issued by the Commission.

**Historical Note**
Adopted effective January 2, 1996 (Supp. 96-1).

**R12-7-176. Permits for Injection Wells**

**A.** The injection of any substance into any geologic formation is prohibited unless 1st authorized by the Commission after notice and hearing. The Commission shall give at least 15 days' notice before a hearing is held for drilling a new injection well or for converting an existing well into an injection well. A permit shall not be required for routine well operations

pursuant to R12-7-122(C) whose physical effects are confined to the area near the well bore.

**B.** The application for a permit for an injection well as defined in R12-7-175 shall be prepared in accordance with R12-7-104, shall meet all the applicable requirements of this Chapter, and shall contain the following requirements, where applicable:

1. A plat showing the location of each proposed injection well and the location and status of all wells, including drilling wells and dry holes, within 1/2 mile of the proposed well. The plat shall include the lease boundary lines, the names of the surface and subsurface lessees and owners within 1/2 mile of the injection well or wells, and the name of each offset operator.
2. A geologic study, including:
   a. A contour map drawn on a geologic marker at or near the top of each injection zone in the project area;
   b. A thickness map of each injection zone in the project area;
   c. A geologic cross-section drawn through the site of an injection well in the project area showing structural details, any wells that may be affected by the project, and the location of the base of any freshwater strata, defined as water having 10,000 ppm or less of total dissolved solids, or a statement that no fresh water exists; and
   d. A representative electric log to a depth below the deepest producing zone identifying all geologic units including the injection and confining zones, freshwater aquifers, and oil, gas, or geothermal zones.
3. An engineering study, including:
   a. A statement of the primary purpose of the project;
   b. The characteristics of the injection and confining zones including porosity, permeability, thickness, areal extent, fracture gradient, original and present temperature and pressure, and residual oil, gas, and water saturations;
   c. The reservoir fluid data for each injection zone including oil gravity and viscosity, water quality, and specific gravity of gas;
   d. A description of each injection well's casing, or the proposed casing and cementing program, and the proposed method of testing the casing before use of the injection well. The casing shall be designed and tested in accordance with R12-7-181(C) with respect to the injection zone;
   e. A diagram of the proposed wellhead;
   f. A casing diagram, including cement plugs, and the actual or calculated cement fill behind the casing of all wells within the area affected by the project, including abandoned wells, showing that they will not cause damage to life, health, property, or natural resources;
   g. The well stimulation program if stimulation is planned; and
   h. The planned well-drilling and abandonment program to complete the project, including a flood-pattern map showing all injection, production, and abandoned wells, and unit boundaries.
4. An injection plan, including:
   a. A diagram and plan of the injection facilities;
   b. The maximum surface injection pressure expected during the life of the project and the estimated daily rate of fluid injection, by well. The operator shall provide calculations showing that the maximum injection pressure will not initiate fractures in the confining zone;
   c. A description of the area affected by the volumetric method and by the pressure-buildup method and the radius affected during the life of the project;
   d. The monitoring system or method to be used to ensure that no damage is occurring and that the injection fluid is confined to the permitted injection zone and to the area controlled by the operator;
   e. The method of injection such as casing, tubing, tubing with packer, between strings;
   f. The protective methods to be used on each injection line and well and a contingency plan for well failure or a shut-in period, including a plan for disposition of fluids not injected as a consequence of well failure;
   g. The source and chemical analysis of the injection fluid, and chemical analysis of the water in the injection zone. If the water in the injection zone has 10,000 ppm or less of total dissolved solids, the applicant shall provide evidence of commercial oil or gas producibility of the zone by means of historical production in the field or by log information, core data, and values for the porosity and permeability of the zone; and
   h. The location and depth of each water-source well that will be used in conjunction with the project.
5. Proof of notification to neighboring operators and surface owners within 1/2 mile of the proposed well.
6. Supplementary data as required in R12-7-180 for storage-well projects.
7. Any additional information that the Commission may determine is necessary to adequately clarify the information submitted pursuant to R12-7-176(B)(1) - (6).
8. All maps, diagrams, and exhibits required in this subsection shall be clearly labeled as to scale and purpose and shall clearly identify wells, boundaries, zones, contacts, and other relevant data.

**C.** Permits may be issued for a period up to the operating life of the well with review once every 5 years. Permits may be modified or terminated during their term if the Commission determines that the operator is not in compliance with the requirements of this Chapter.

**Historical Note**
Former Rule 701; Amended effective September 29, 1982. See also Section R12-7-141 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-177. Repealed**

**Historical Note**
Former Rule 702; Amended effective September 29, 1982 (Supp. 82-5). Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-178. Notice of Commencement, Discontinuance, and Transfer of Injection Operations**

The following provisions apply to all injection projects defined in R12-7-175:

1. The operator shall notify the Commission of the date that injection operations will begin.
2. The operator shall notify the Commission of the date that injection operations will cease and provide the reasons for discontinuing the injection operations.
   a. The temporary abandonment of any injection well shall be in accordance with R12-7-125. Temporarily

abandoned injection wells shall meet the testing requirements of R12-7-179(D).

b. All injection wells shall be plugged and abandoned, in accordance with R12-7-126 and R12-7-127.

3. An injection well shall not be transferred from 1 operator to another without the written approval of the Commission.
   a. The operator shall file the request for transfer of ownership of an injection well in triplicate with the Commission at least 45 days before the proposed transfer date. The request shall include the name, address, and telephone number of the proposed new operator and provide the location and status of each well involved.
   b. The proposed new operator shall file with the Commission an organization report as required in R12-7-194 and bond as required in R12-7-103 before the request for transfer will be considered.
   c. The Commission shall return 1 copy of the request for transfer to the operator and 1 to the proposed new operator within 30 days after receipt of the information required in subsections (3)(a) and (b), designating approval or denial of the transfer of authority to inject for the subject well.
      i. If the proposed transfer is approved, a copy of the order authorizing injection shall be attached to the approved request for transfer.
      ii. If the proposed transfer is denied, the Commission shall return 1 copy of the request to the operator and 1 copy to the proposed operator together with the reasons for the denial and the steps necessary for its approval.

**Historical Note**
Former Rule 703; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-2).

**R12-7-179. Testing and Monitoring of Injection Wells**

**A.** The operator of an injection well shall file a weekly sundry report with the Commission on all drilling, completion, recompletion, and workover operations.

**B.** The operator of an injection well shall monitor operations to ensure that injection pressure at the wellhead does not exceed the maximum pressure authorized in the permit, and that no injection shall cause movement of injection or formation fluids into an underground source of drinking water.

**C.** The operator shall keep accurate records of the amount of oil, gas, water, or geothermal resources produced, the volume of substances injected, the average and maximum pressure used for injection, and the nature of the injected fluid. The operator of an enhanced recovery or disposal well shall submit a report as required in R12-7-187. The operator of a storage well shall submit a report as required in R12-7-185.

**D.** The operator shall run the following pressure or monitoring tests on new injection wells to establish the mechanical integrity of the tubing, casing, and packer. Existing wells being converted to an injection well shall be tested in the same manner and shall maintain the same mechanical integrity as a new well.
   1. The casing-tubing annulus above the packer shall be tested upon completion and at least once every 5 years, under the supervision of the Commission, at a pressure equal to the lesser of the maximum authorized injection pressure or 1,000 psi, provided that no testing pressure shall be less than 300 psi. Documentation of the test shall be submitted to the Commission. Test pressures shall be applied for a period of 30 minutes. If a drop of more than 10% of the test pressure should occur, corrective measures shall be applied. If the tubing, casing, or packer cannot be brought up to standard, the well shall be plugged and abandoned in accordance with R12-7-126 and R12-7-127.
   2. The Commission may require the operator to run a tracer survey, a temperature log, or a noise log to demonstrate the absence of fluid movement in vertical channels adjacent to the injection well.

**E.** Mechanical failure or downhole problems which indicate an injection well is not, or may not be, directing the injected fluid into the permitted injection zone may be cause to shut in the well. The operator shall notify the Commission within 24 hours of any such failure or problem. A written notice shall be filed within 5 days of the occurrence, with a plan for testing and repairing the well. If the well cannot be brought up to the standard required in subsection (D), it shall be plugged and abandoned in accordance with R12-7-126 and R12-7-127.

**Historical Note**
Former Rule 704; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-180. Supplementary Requirements for Storage Wells**

The application for a storage well as defined in R12-7-175(B)(2) shall be prepared in accordance with R12-7-176 and shall contain the following, where applicable:

1. Information on any oil or gas production within 5 miles of each proposed well;
2. Information on the oil and gas reserves of each storage zone before starting injection, including calculations;
3. A comprehensive plan for disposition of brine and salt produced in the course of creating a solution-mined salt cavity. Cavities shall be designed and constructed in accordance with R12-7-181;
   a. Surface disposition shall be subject to the rules of the Department of Water Resources and the Department of Environmental Quality;
   b. Saltwater disposal wells shall be permitted in accordance with R12-7-176;
   c. Surface brine reservoirs used in the operation of the storage system and disposal reservoirs shall be designed to prevent the contamination of air, fresh water, and soil;
4. A list of proposed surface and subsurface safety devices, tests, and precautions to be taken to ensure safety of the project. The operator shall install a flare or other safety system acceptable to the Commission at or near each brine pit or any other location where escape of gases is likely to occur.

**Historical Note**
Former Rule 705; Amended effective September 29, 1982 (Supp. 82-5). Amended effective January 2, 1996 (Supp. 96-1).

**R12-7-181. Design and Construction of Storage Wells and Cavities**

**A.** Before drilling a storage well for storing liquid or gaseous hydrocarbons, or any other substances under the jurisdiction of the Commission, in an underground cavity, the applicant shall demonstrate to the Commission that the proposed storage will preserve the structural integrity of the host rock, including halite, and the overlying sediments. The evidence presented shall include:

1. An investigation to determine the feasibility of a storage system at the particular site; and
2. An assessment of the stability of each proposed cavity design, particularly with regard to the size, shape and depth of the storage cavity, the amount of separation between storage cavities, and the amount of separation between the storage cavity and the periphery of the host rock.

**B.** The design of a solution-mined storage system shall be based on site-specific geologic and engineering parameters including type of storage use, location of each cavity, number of cavities, cavity capacity, and maximum development diameter of each cavity. The design shall ensure that project development can be conducted in a reasonable, prudent, and systematic manner and shall stress physical and environmental safety and the prevention of waste. The design and solution mining shall be continually reviewed throughout the construction phase to account for any new subsurface information and shall include provisions for protection from damage caused by hydraulic shock. The original development and operational plans shall be modified, as necessary, to conform with good engineering practice. The design shall incorporate the standards outlined below:

1. The minimum separation between the nearest outer walls of adjacent storage cavities as measured in any direction shall be established considering:
   a. The properties of the host rock;
   b. The elevation of the top and bottom of the adjacent cavities;
   c. Their maximum development diameter relative to the spacing of the cavities; and
   d. Other considerations deemed appropriate for the specific site; however, in no case shall such separation at any time during the storage project be less than 200 feet.
2. The walls of a storage cavity shall be no less than 200 feet from the boundary of the lands included in the storage project on which the chambers are located.
3. If the design involves the intentional subsurface connection between 2 adjacent storage cavities under 1 property (that is, a "U"-tube storage-cavity system), the minimum separation between cavities specified in subsection (B)(1)(d) shall not apply.

**C.** The borehole shall be dually cased from the surface into the cavity in accordance with R12-7-110 and R12-7-111. At least 2 strings of casing shall be fully cemented from the surface into the host rock either during the primary cement job or by remedial action. The Commission may administratively grant an exception to the requirement for 2 strings of cemented casing if the applicant can show that the exception is reasonable, justified by site-specific geologic or engineering parameters, is no less stringent, and consistent with the intent of these rules regarding physical and environmental safety, conservation of the resource, and the prevention of waste.

1. The final cemented casing string shall have tensile and collapse strengths, as approved by the Commission, for the setting depth and shall be set a minimum of 200 feet into the formation to be used for the storage cavity.
2. The casing seat of the final cemented casing string shall be pressure-tested after drilling at least 10 feet into the formation below the casing seat. The test pressure calculated at the casing seat shall equal the proposed maximum operating pressure at that point and shall not exceed 0.9 psi per foot of depth.
3. After the wellhead has been installed and before products are stored, the system shall be pressure-tested as a unit.
4. All tests required in this subsection shall meet the integrity standards set in R12-7-179(D).

**D.** Storage facilities in existence prior to June 1, 1978, shall not be required to meet the planning and construction requirements of subsections (B) and (C), except for future expansions or additions.

**Historical Note**
Adopted effective August 31, 1978 (Supp. 78-4).
Amended effective September 29, 1982 (Supp. 82-5).
Amended (and subsections (A)(1)(h) through (m) moved to Section R12-7-182) effective January 2, 1996 (Supp. 96-1)

**R12-7-182. Operation, Inspection, and Closure of Storage-well Systems**

**A.** The maximum and minimum operating pressures of a storage system shall be determined in consideration of the lithologic characteristics of the host rock. The maximum operating pressure at the shallower of the casing seat or cavity ceiling shall not exceed 0.9 psi per foot of depth.

1. The storage system shall not be subjected to pressures exceeding the maximum operating pressure even for short periods of time, including pressure pulsation peaks and abnormal operating conditions.
2. The wellhead, flowlines, valves, and all related connections shall have a test pressure rating equivalent to 125% of the maximum pressure which could be exerted at the surface. All valves shall be periodically inspected and maintained in good working order.
3. The wellhead and storage system shall be protected with safety devices to prevent pressures exceeding the maximum operating pressure from being exerted on the storage system and to prevent backflow of stored products in the event of flowline rupture.
4. Personnel shall be at either the well or other control sites for the well during injection or withdrawal from any storage well.

**B.** The flare, as required in R12-7-180(4), shall be burned continuously when a liquified gas or other flammable substance is being injected into a cavern.

**C.** Each operator of a storage well shall conduct semiannual safety inspections of the operator's facility and file with the Commission a written report on the inspection procedures and results within 5 days following the inspection. The operator shall notify the Commission at least 5 days before an inspection to allow a representative of the Commission to witness the inspection. Inspections shall include, the following:

1. Operation of all manual valves;
2. Operation of all automatic shut-in safety valves, including sounding or alarm devices;
3. Examination of flare system or other safety system installation;
4. Examination of earthen brine pits, tanks, firewalls, and related equipment;
5. Examination of flowlines, manifolds, and related equipment;
6. Examination of warning signs and safety fences;
7. Examination of housekeeping practices including the removal of weeds, used equipment, and debris from the area of operations;
8. The Commission may require additional inspections at any time during regular working hours and upon reasonable notice to the operator.

**D.** A capacity determination for each storage cavity shall be made and filed with the Commission upon completion of the storage

cavity. These determinations shall be verified at least once every 5 years.

**E.** Safety precaution signs shall be displayed and unauthorized personnel kept out of the storage area. Each storage wellhead shall be visibly marked in accordance with R12-7-106(D). Guard rails shall be installed where the Commission determines it is necessary to ensure safety.

**F.** Storage wells shall be plugged and abandoned in accordance with R12-7-126 and R12-7-127.

**G.** If the Commission determines that the continued operation of a storage well or associated facilities, including valves, brine tanks or pits, flares, dehydrators, and loading and docking facilities, would cause unsafe operating conditions, waste, pollution, or contamination of air, fresh water, or soil, or encroachment on adjacent property, the Commission shall order discontinuance of operations of the storage facility or any part thereof until the Commission determines that the project can and will be conducted in a physically and environmentally safe manner.

**H.** The operator shall notify the Commission within 24 hours of every accident or equipment malfunction which causes loss of life or requires hospitalization of personnel; threatens the public health and safety; pollutes the air, soil, or fresh water; or causes loss of the stored substance. A final written report shall be filed with the Commission in accordance with R12-7-120(B).

**I.** The Commission may administratively grant exceptions to the guidelines and requirements of this Section if the applicant can show that the exception is reasonable, justified by site-specific geologic or engineering parameters, are no less stringent, and consistent with the intent of these rules regarding physical and environmental safety, conservation of the resource, and the prevention of waste. An applicant may request a hearing pursuant to A.R.S. § 27-517.

**Historical Note**
Adopted by moving subsections (A)(1)(h) through (m) of R12-7-181 and amending the text effective January 2, 1996 (Supp. 96-1).

**R12-7-183. Certificate of Compliance and Authorization to Transport**

**A.** Each producer or operator of any well shall execute under oath and file with the Commission an operator's certificate of compliance and authorization to transport oil, gas, or geothermal resources from lease provided by the Commission for each well.

**B.** The certificate, when properly executed and approved by the Commission, shall constitute authorization to the pipeline or other transporter to transport oil, gas or geothermal resources from the developed unit named. The Commission may provide written permission for the transportation of production in order to prevent waste, pending execution and approval of the certificate.

**C.** The certificate shall remain in full force and effect until:
1. The operating ownership of the developed unit changes, or
2. The transporter changes, or
3. The certificate is cancelled by the Commission.

**D.** When a change occurs in operating ownership of any developed unit, or when a change occurs in the transporter from any developed unit, the operator shall file a new certificate with the Commission within 10 days of the change. With respect to a temporary change in transporter which involves less than the production of one month, the producer may, in lieu of filing a new certificate, notify the Commission and the transporter in writing of the estimated amount of oil, gas, or geothermal resources to be moved by the temporary transporter, and the name of the temporary transporter. The operator shall furnish a copy of the notice to the temporary transporter.

**E.** The temporary transporter shall not move any greater quantity of oil, gas, or geothermal resources than the estimated amount shown in the notice.

**F.** Time-frames
1. The Commission shall mail to the producer or operator, within 10 days of receipt of the certificate required in subsection (A), written notice of administrative completeness or a detailed list of deficiencies. Within 10 days of receipt of an administratively complete certificate, the Commission shall approve the certificate or provide a written explanation in compliance with A.R.S. § 41-1076 to the producer or operator if the certificate is not approved. The overall time-frame is 20 days.
2. For the purpose of this subsection, intermediate Saturdays, Sundays, and legal holidays are not included in the time-frame computation.

**Historical Note**
Former Rule 801; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1). Amended effective June 6, 1997 (Supp. 97-2).

**R12-7-184. Recovered Load Oil**

Recovered load oil may be run from a lease on which it is recovered only upon approval by the Commission of a certificate for load oil credit and permit to transport recovered load oil showing the source and amount of the load oil. Upon approval, the Commission shall forward one copy to the designated transporter as authority to transport the oil. This rule applies only to oil obtained from a source other than the lease on which it is used.

**Historical Note**
Former Rule 802; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-185. Transporter's and Storer's Monthly Report**

**A.** Each transporter of oil and condensate shall furnish for each calendar month a report containing information and data respecting stocks of oil and condensate on hand and all movements within the state of oil and condensate by pipeline, trucks, or other conveyances except railroad, from leases to storers or refiners; movements between transporters within the state; movements between storers within the state; movements between refiners within the state; and movements between storers and refiners within the state.

**B.** Each storer of oil and condensate shall furnish for each calendar month a report containing information and data respecting the storage of oil and condensate within the state.

**C.** Each storer of natural gas, liquified petroleum gas, or other hydrocarbon or nonhydrocarbon gases in storage wells shall furnish for each calendar month a report containing information and data respecting the storage, including receipts and deliveries, of such products within the state.

**D.** Transporters and storers shall file reports required in this Section with the Commission on or before the 25th day of the next succeeding month.

**Historical Note**
Former Rule 803; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-186. Gas or Geothermal Purchaser's Monthly Report**

**A.** Each purchaser or taker of gas in gaseous form or geothermal resources from any well, lease, pool or proration unit shall file for each calendar month a report detailing acquisition and disposition of all gas in gaseous form or geothermal resources purchased or taken during that month.

**B.** Purchasers and takers shall file reports required in this Section with the Commission on or before the 25th day of the next succeeding month.

**Historical Note**

Former Rule 804; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-187. Injection Project Report**

**A.** Each operator of an injection project shall furnish for each injection well for each calendar month a report of injection project containing information and data including the lease and well number, the well's state permit number, average injection pressure during the month, amount of fluid in barrels injected during the month, the total amount of fluid injected to date, the source of the injected fluid, and the number of days the injection well was operated during the month.

**B.** Operators of injection projects shall file reports required in this Section with the Commission on or before the 25th day of the next succeeding month.

**Historical Note**

Adopted effective February 23, 1993 (Supp. 93-1).

**R12-7-188. Refinery Reports**

**A.** Each refiner of oil or condensate shall furnish for each calendar month a refinery monthly report containing information and data respecting oil, condensate and products involved in the refiner's operations during each month.

**B.** Refiners shall file reports required in this Section with the Commission on or before the 25th day of the next succeeding month.

**Historical Note**

Former Rule 901; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-189. Repealed**

**Historical Note**

Former Rule 902; Amended effective September 29, 1982 (Supp. 82-5). Repealed effective February 23, 1993 (Supp. 93-1).

**R12-7-190. Gasoline Plant Reports**

**A.** Each operator of a gasoline plant, cycling plant, or any other plant at which gasoline, butane, propane, condensate, kerosene, oil or other liquid products are extracted from gas shall furnish for each calendar month a gasoline plant or pressure maintenance plant monthly report containing information and data respecting gas and products involved in the operation of each plant during each month.

**B.** Operators shall file reports required by this Section with the Commission on or before the 25th day of the next succeeding month.

**Historical Note**

Former Rule 903; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-191. Reserved**

**R12-7-192. Books and Records to Substantiate Reports**

**A.** Each operator, producer, transporter, storer, refiner, processor, gasoline or extraction or geothermal generating plant operator, and initial purchaser of oil, gas, or geothermal resources shall make and keep books and records covering operations in Arizona, from which are made and which will substantiate all reports required by the Commission.

**B.** Books and records required in this Section shall be available for inspection by the Commission for at least a six-year period.

**Historical Note**

Former Rule 1001; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-193. Repealed**

**Historical Note**

Former Rule 1002. Amended effective February 23, 1993 (Supp. 93-1). Repealed effective September 22, 1993 (Supp. 93-3).

**R12-7-194. Organization Reports**

**A.** Before any person shall engage in any activity covered by this Chapter, that person shall file with the Commission an organization report that includes a statement under oath giving the following information:

1. The name under which the business is being operated or conducted;
2. The name and post office address of the person and the business or businesses engaged in;
3. The plan or organization, and, if a reorganization, the name and address of the previous organization;
4. The state where incorporated, if a foreign corporation, and the name and post office address of the Arizona agent, together with the date of permit to do business in Arizona; and
5. The names and addresses of the principal officers or partners and the names and addresses of the directors.

**B.** When a change occurs, as to facts stated in the report filed, a new organization report shall be filed with the Commission within ten days of the change.

**Historical Note**

Former Rule 1003. Amended effective February 23, 1993 (Supp. 93-1).

**R12-7-195. Repealed**

**Historical Note**

Former Rule 1004; Amended effective September 29, 1982 (Supp. 82-5). Amended effective February 23, 1993 (Supp. 93-1). Repealed effective September 22, 1993 (Supp. 93-3).

**Appendix 1. Repealed**

**Historical Note**

(For the convenience of the operator, the forms and reports in common use by the United States Geological Survey, and for the purpose for which each form was designed, may be submitted in lieu of similar Commission forms. Commission forms No. 1, 2, 3, 4, and 27 must be used for their designated purpose and no substitutes will be acceptable.) Repealed effective January 2, 1996 (Supp. 96-1).

**ARTICLE 2. REPEALED**

**R12-7-201. Repealed**

**Historical Note**
Former A. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-202. Repealed**

**Historical Note**
Former B. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-203. Repealed**

**Historical Note**
Former Rule G-101. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-204. Repealed**

**Historical Note**
Former Rule G-102. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-205. Repealed**

**Historical Note**
Former Rule G-103. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-206. Repealed**

**Historical Note**
Former Rule G-104. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-207. Repealed**

**Historical Note**
Former Rule G-105. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-208. Repealed**

**Historical Note**
Former Rule G-106. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-209. Repealed**

**Historical Note**
Former Rule G-107. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-210. Repealed**

**Historical Note**
Former Rule G-108. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-211. Repealed**

**Historical Note**
Former Rule G-109. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-212. Repealed**

**Historical Note**
Former Rule G-110. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-213. Repealed**

**Historical Note**
Former Rule G-111. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-214. Repealed**

**Historical Note**
Former Rule G-112. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-215. Repealed**

**Historical Note**
Former Rule G-113. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-216. Repealed**

**Historical Note**
Former Rule G-114. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-217. Repealed**

**Historical Note**
Former Rule G-115. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-218. Repealed**

**Historical Note**
Former Rule G-116. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-219. Repealed**

**Historical Note**
Former Rule G-117. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-220. Repealed**

**Historical Note**
Former Rule G-118. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-221. Repealed**

**Historical Note**
Former Rule G-119. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-222. Reserved**

**R12-7-223. Reserved**

**R12-7-224. Reserved**

**R12-7-225. Reserved**

**R12-7-226. Reserved**

**R12-7-227. Reserved**

**R12-7-228. Reserved**

**R12-7-229. Reserved**

**R12-7-230. Reserved**

**R12-7-231. Repealed**

**Historical Note**
Former Rule G-201. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-232. Repealed**

**Historical Note**
Former Rule G-202. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-233. Repealed**

**Historical Note**
Former Rule G-203. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-234. Repealed**

**Historical Note**
Former Rule G-204. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-235. Reserved**

**R12-7-236. Reserved**

**R12-7-237. Reserved**

**R12-7-238. Reserved**

**R12-7-239. Reserved**

**R12-7-240. Reserved**

**R12-7-241. Repealed**

**Historical Note**
Former Rule G-301. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-242. Repealed**

**Historical Note**
Former Rule G-302. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-243. Repealed**

**Historical Note**
Former Rule G-303. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-244. Repealed**

**Historical Note**
Former Rule G-304. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-245. Repealed**

**Historical Note**
Former Rule G-305. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-246. Repealed**

**Historical Note**
Former Rule G-306. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-247. Reserved**

**R12-7-248. Reserved**

**R12-7-249. Reserved**

**R12-7-250. Reserved**

**R12-7-251. Repealed**

**Historical Note**
Former Rule G-401. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-252. Repealed**

**Historical Note**
Former Rule G-402. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-253. Reserved**

**R12-7-254. Reserved**

**R12-7-255. Reserved**

**R12-7-256. Reserved**

**R12-7-257. Reserved**

**R12-7-258. Reserved**

**R12-7-259. Reserved**

**R12-7-260. Reserved**

**R12-7-261. Repealed**

**Historical Note**
Former Rule G-501. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-262. Repealed**

**Historical Note**
Former Rule G-502. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-263. Repealed**

**Historical Note**
Former Rule G-503. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-264. Repealed**

**Historical Note**
Former Rule G-504. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-265. Reserved**

**R12-7-266. Reserved**

**R12-7-267. Reserved**

**R12-7-268. Reserved**

**R12-7-269. Reserved**

**R12-7-270. Reserved**

**R12-7-271. Repealed**

**Historical Note**
Former Rule G-601. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-272. Repealed**

**Historical Note**
Former Rule G-602. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-273. Reserved**

**R12-7-274. Reserved**

**R12-7-275. Reserved**

**R12-7-276. Reserved**

**R12-7-277. Reserved**

**R12-7-278. Reserved**

**R12-7-279. Reserved**

**R12-7-280. Reserved**

**R12-7-281. Repealed**

**Historical Note**
Former Rule G-701. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-282. Reserved**

**R12-7-283. Reserved**

**R12-7-284. Reserved**

**R12-7-285. Reserved**

**R12-7-286. Reserved**

**R12-7-287. Reserved**

**R12-7-288. Reserved**

**R12-7-289. Reserved**

**R12-7-290. Reserved**

**R12-7-291. Repealed**

**Historical Note**
Former Rule G-801. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-292. Repealed**

**Historical Note**
Former Rule G-802. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-293. Repealed**

**Historical Note**
Former Rule G-803. Repealed effective January 2, 1996 (Supp. 96-1).

**R12-7-294. Repealed**

**Historical Note**
Former Rule G-804. Repealed effective January 2, 1996 (Supp. 96-1).

**Appendix 1. Repealed**

**Historical Note**
Repealed effective January 2, 1996 (Supp. 96-1).

# TITLE 12. NATURAL RESOURCES

# CHAPTER 8. ARIZONA STATE PARKS BOARD

(Authority: A.R.S. § 41-511 et seq.)

*Editor's Note: Sections in this Chapter were adopted and amended under an exemption from the provisions of the Arizona Administrative Procedure Act, pursuant to A.R.S. § 41-1005(A)(21). Exemption from this Act means that this Section was not reviewed or approved by the Governor's Regulatory Review Council; notice of this rule was not submitted to the Office of the Secretary of State for publication in the Arizona Administrative Register; and no public comment period or public hearings were required to be held on this rule. Because this Chapter contains rules which were adopted under a rulemaking exemption, the Chapter is printed on blue paper.*

## ARTICLE 1. GENERAL PROVISIONS

Section
R12-8-101. Definitions
R12-8-102. Permission to enter or remain in a state park
R12-8-103. Vandalism
R12-8-104. Hours of use; use; closure
R12-8-105. Day use areas/hours
R12-8-106. Limited services on Christmas Day
R12-8-107. Litter and waste
R12-8-108. Payment of fees
R12-8-109. Fees and Permits
R12-8-110. Fee Waivers
R12-8-111. Camping
R12-8-112. Campfires
R12-8-113. Vehicles, speed limits and parking
R12-8-114. Watercraft; launching and mooring
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R12-8-117. Reserved
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R12-8-119. Weapons
R12-8-120. Fireworks and explosives
R12-8-121. Reserved
R12-8-122. Commercial use of a park
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R12-8-124. Disorderly conduct
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## ARTICLE 1. GENERAL PROVISIONS

### R12-8-101. Definitions

In this rule, unless the context otherwise requires:

1. "Board" means the Arizona State Parks Board.
2. "Cabana site" means a camp site with a shelter having two walls, a roof, and electricity available within the shelter.
3. "Camp or camping" means erecting a tent or shelter or arranging bedding, or both, for the purpose of or in such a way as will permit overnight use; or parking a trailer, camper or other vehicle for the purpose of overnight occupancy.
4. "Camping unit or camp site" means a defined space within an area designated for camping.
5. "Concession" means a grant by the Board for the use of land or property to provide specified services or facilities to the public.
6. "Day use area" or "day use" means an area which is closed to camping or overnight use but open to the public during the hours established in rule R12-8-105.
7. "Director" means the Executive Director of the Arizona States Parks Board.
8. "Fee area" means any area for which a fee is charged for the use, occupancy or entrance thereto.
9. "Historic facility" means a facility which has as its primary purpose the preservation of the facility's cultural resources including archaeological, prehistoric, and historic resources and the interpretation thereof for the facility user.
10. "Hook-up site" means a camp site with one or more of the following available for hook-up: water, sewer, or electricity.
11. "Interpretive program" means a scheduled program at state parks, excluding concession programs, which involve state park personnel for the purpose of informing, educating, or interpreting resources for the public.
12. "Park officer" means any employee appointed by the Board as a Park Ranger Law Enforcement Officer with the authority and power of a Peace Officer under A.R.S. § 41-511.09.
13. "Park ranger" means an employee of the Board.
14. "Person" means an individual, corporation, firm, partnership, club or association.
15. "Recreational facility" means a facility which has as its primary purpose the provision of active and passive recreational opportunities for the visiting public.
16. "Special program" means an activity sponsored by State Parks which is for the enjoyment of park visitors.
17. "Special use" means nonpublic activities such as weddings, organized group meetings, jog-a-thons, seminars, and commercial photography which are outside of the park's activity design or which require exclusion of the general public from an area of the park.
18. "State Park System" or "State Park" means all land, water and improvements in state parks, monuments, historical sites and state recreation areas and any other area administered by the State Parks Board.
19. "Wildlife" means all wild mammals, wild birds and the nests or eggs thereof, reptiles, amphibians, mollusks, crustaceans and fish, including their eggs or spawn.

**Historical Note**
Former Rule 1; Former Section R12-8-01 repealed, new Section R12-8-01 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-02 renumbered and amended as Section R12-8-101 effective November 1, 1981 (Supp. 81-5). Amended effective March 7, 1991 (Supp. 91-1).

**R12-8-102. Permission to enter or remain in a state park**
Permission to enter, remain upon or use a state park is conditioned upon compliance with law, including these regulations. A person who violates any law while in a state park shall leave the premises upon order of a Park Ranger or Peace Officer.

**Historical Note**
Former Rule 2; Former Section R12-8-02 repealed, new Section R12-8-02 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-01 renumbered and amended as Section R12-8-102 effective November 1, 1981 (Supp. 81-5).

**R12-8-103. Vandalism**
It is unlawful to deface, injure, destroy, remove or use without authority any public facility or public property including all wildlife, plants, animals, archaeological, geological or historical objects found within a state park.

**Historical Note**
Former Rule 3; Former Section R12-8-03 repealed, new Section R12-8-03 adopted effective January 28, 1976 (Supp. 76-1). Former Sections R12-8-03 and R12-8-06 renumbered and amended as Section R12-8-103 effective November 1, 1981 (Supp. 81-5).

**R12-8-104. Hours of use; use; closure**
**A.** Camping units and undeveloped areas are open to public use at all hours. Historic sites are open to the public from 8:00 a.m. to 5:00 p.m. Day use areas are governed by R12-8-105.
**B.** The Director or Park Manager, in the interest of public safety or to protect public property, may temporarily restrict the hours of public use or close to the public any state park or portion of it. The Park Manager may extend the hours of use on a temporary basis to accommodate unusual circumstances.
**C.** No person shall enter, remain upon or use any state park in violation of the restrictions governing its hours or use or an order for its closure.

**Historical Note**
Former Rule 4; Former Section R12-8-04 repealed, new Section R12-8-04 adopted effective January 28, 1976 (Supp. 76-1). Former Sections R12-8-04 and R12-8-05 renumbered and amended as Section R12-8-104 effective November 1, 1981 (Supp. 81-5). Amended subsections (A) and (C) effective July 12, 1984 (Supp. 84-4).

**R12-8-105. Day use areas/hours**
Day use areas are open for public use from 8:00 a.m. until 10:00 p.m. The Director or Park Manager, in the interest of public safety or to protect public property, may restrict the hours of public use. The Park Manager may extend the hours of use to accommodate special events or seasonal or unusual variations in public use. Any exceptions will be posted at the park entrance.

**Historical Note**
Former Rule 5; Former Section R12-8-05 repealed, new Section R12-8-05 adopted effective January 28, 1976 (Supp. 76-1). Amended effective June 29, 1979 (Supp. 79-3). Former Section R12-8-05 renumbered and amended as Section R12-8-105 effective November 1, 1981 (Supp. 81-5). Amended effective March 23, 1990 (Supp. 90-1).

**R12-8-106. Limited services on Christmas Day**
Park facilities are not manned on Christmas Day except in an emergency. On that day, museums and contact stations are closed. Other areas are open for public use.

**Historical Note**
Former Rule 6; Former Section R12-8-06 repealed, new Section R12-8-06 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-05 renumbered and amended as Section R12-8-106 effective November 1, 1981 (Supp. 81-5).

**R12-8-107. Litter and waste**
**A.** No person shall leave or discard any trash, garbage, human or animal waste in a state park unless confined in a sanitary manner and deposited in a maintained facility designated to receive it.
**B.** It is unlawful to deposit in a state park any trash, garbage, human or animal waste collected from a private residence or commercial business.

**Historical Note**
Former Rule 7; Former Section R12-8-07 repealed, new Section R12-8-07 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-14 renumbered and amended as Section R12-8-107 effective November 1, 1981 (Supp. 81-5).

**R12-8-108. Payment of fees**
No person shall enter, remain upon, or use a designated fee area without paying the required fee or obtaining permission from a Park Ranger. Fees, other than Annual Day Use Permits, collected in any park do not authorize use of facilities in another park.

**Historical Note**
Former Rule 8; Former Section R12-8-08 repealed, new Section R12-8-08 adopted effective February 1, 1976 (Supp. 76-1). Amended effective June 30, 1978 (Supp. 78-3). Former Section R12-8-07 renumbered and amended as Section R12-8-108 effective November 1, 1981 (Supp. 81-5).

***Editor's Note: The Arizona State Parks Board amended this Section effective March 2, 1998, under an exemption from the Arizona Administrative Procedure Act. Exemption from this Act means this Section was not submitted to the Office of the Secretary of State for publication as a proposed rule in the Arizona Administrative Register; no public comment period or public hearings were required to be held on this rule; and the rule was not reviewed or approved by the Governor's Regulatory Review Council (Supp. 98-1).***

***Editor's Note: The Arizona State Parks Board amended this Section effective January 1, 1998, under an exemption from the Arizona Administrative Procedure Act. Exemption from this Act means this Section was not submitted to the Office of the Secretary of State for publication as a proposed rule in the Arizona Administrative Register; no public comment period or public hearings were required to be held on this rule; and the rule was not reviewed or approved by the Governor's Regulatory Review Council (Supp. 97-4).***

***Editor's Note: The Arizona State Parks Board repealed the old Section text as specified in the following Editor's Note, effective January 12, 1996, under an exemption from the Arizona Administrative Procedure Act. Exemption from this Act means that this Section was not submitted to the Office of the Secretary of State for publication as a proposed rule in the Arizona Administrative Register; no public comment period or public hearings***

***were required to be held on this rule; and the rule was not reviewed or approved by the Governor's Regulatory Review Council (Supp. 96-1).***

***Editor's Note: The Arizona State Parks Board adopted a new R12-8-109 under an exemption from the provisions of the Arizona Administrative Procedure Act but did not repeal the old rule. Therefore the text of both the old Section and the new Section appear here, with the old Section appearing first and the new Section appearing second. The agency will repeal the old text in January 1996.***

***Editor's Note: The following Section was amended under an exemption from the provisions of the Arizona Administrative Procedure Act. Exemption from this Act means that this Section was not reviewed by the Governor's Regulatory Review Council or the Attorney General; notice of this rule was not submitted to the Office of the Secretary of State for publication in the Arizona Administrative Register; and no public comment period or public hearings were required to be held on this rule.***

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Arizona Administrative Procedure Act.***

**R12-8-109. Fees and Permits**

**A.** Annual Fee Review. The Board shall annually review and set fees for entrance, camping, and overnight parking at state park facilities. The fees shall be posted at each state park and printed in appropriate state park literature for public information. Fees shall be based upon analysis of the following criteria:
1. Fee and permit charges by state park agencies of the 11 western states and similar facilities within Arizona,
2. Arizona State Parks operational and developmental costs,
3. Public demand for services, and
4. Impacts upon park resources.

**B.** Entrances fees/permits. Entrance, camping, and overnight parking fees for each park can be found in Exhibit A. A fee will not be charged for private vehicles or individuals requesting a 15 minute or less preview of a recreation park.

**C.** Special Use Fees. The Director may negotiate a specific fee for special uses. The range for noncommercial and commercial uses at state park facilities shall be the fee charged unless the Executive Director determines that an increase is justified based upon analysis of the following criteria:
1. Park expenses resulting from the special use,
2. Loss of revenue resulting from the special use,
3. Impacts upon park resources and visitors as a result of the special use, or
4. The goodwill produced by informing or educating the public.

**D.** Special interpretive fees. A special interpretive fee for events sponsored by state parks may be assessed or park fees during the event may be waived. If assessed, this fee shall be established by the Executive Director according to the criteria specified in subsection (C). Special interpretive fees shall be established in advance of the event and posted as stated in this rule.

**E.** Commercial Vehicle Access Permit (CVAP) will be required by any person that enters a state park to conduct any portion of a business that is not covered by a concession agreement or special use permit. Permits will be issued either as Rental Businesses or Retail Businesses.

**Historical Note**

Former Rule 9; Former Section R12-8-09 repealed, new Section R12-8-09 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-08 renumbered and amended as Section R12-8-109, subsections (A), (B) and (D), effective November 1, 1981, subsection (C) effective January 1, 1982 (Supp. 81-5). Amended by adding subsection (E) effective July 12, 1984 (Supp. 84-4). Amended subsections (B) and (D) and added subsection (F) effective January 1, 1985 (Supp. 84-6). Amended effective April 22, 1988 (Supp. 88-2). Repealed due to legislative exemption which was amended into the Arizona Administrative Procedure Act. New Section adopted effective January 1, 1994, under an exemption from the provisions of the Arizona Administrative Procedure Act; filed in the Office of the Secretary of State December 28, 1993 (Supp. 93-4). Amended effective January 1, 1995, under an exemption from A.R.S. Title 41, Chapter 6, pursuant to A.R.S. § 41-1005(A)(21); filed in the Office of the Secretary of State December 23, 1994 (Supp. 95-3). New Section adopted effective January 1, 1996, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-1005(A)(21); filed in the Office of the Secretary of State December 22, 1995 (Supp. 95-4). Text of Section in effect before January 1, 1996, repealed effective January 11, 1996, pursuant to an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-1005(A)(21) (Supp. 96-1). Amended effective January 1, 1997, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State December 9, 1996 (Supp. 96-4). Amended effective January 1, 1998, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State December 11, 1997 (Supp. 97-4). Amended effective March 2, 1998, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State February 13, 1998 (Supp. 98-1).

***Editor's Note: The Arizona State Parks Board amended this Section effective January 1, 1998, under an exemption from the Arizona Administrative Procedure Act. Exemption from this Act means this Section was not submitted to the Office of the Secretary of State for publication as a proposed rule in the Arizona Administrative Register; no public comment period or public hearings were required to be held on this rule; and the rule was not reviewed or approved by the Governor's Regulatory Review Council (Supp. 97-4).***

***Editor's Note: The Arizona State Parks Board repealed the old Section text as specified in the following Editor's Note, effective January 12, 1996, under an exemption from the Arizona Administrative Procedure Act. Exemption from this Act means that this Section was not submitted to the Office of the Secretary of State for publication as a proposed rule in the Arizona Administrative Register; no public comment period or public hearings were required to be held on this rule; and the rule was not reviewed or approved by the Governor's Regulatory Review Council. (Supp. 96-1).***

***Editor's Note: The Arizona State Parks Board adopted a new R12-8-109 under an exemption from the provisions of the Arizona Administrative Procedure Act but did not repeal the old rule. Therefore the text of both the old Section and the new Section appear here, with the old Section appearing first and the new Section appearing second. The agency will be repealing the old text soon.***

***Editor's Note: The following Section was adopted under an exemption from the provisions of the Arizona Administrative Procedure Act. Exemption from this Act means that this Section was***

***not reviewed by the Governor's Regulatory Review Council; notice of this rule was not submitted to the Office of the Secretary of State for publication in the Arizona Administrative Register; no public comment period or public hearings were required to be held on this rule; and the Attorney General has not certified this rule.***

**R12-8-110. Fee Waivers**

**A.** The Park Manager, or official designee of the Park Manager, is authorized to grant waivers of the entrance fee to educational and handicapped groups in accordance with the following guidelines:
1. Subject to the discretion of the Park manager, fees for preschools and accredited K-12 school groups may be waived. Program fees for large groups that are scheduled for special interpretive programs, ranger-led hikes, or tours of the park will be charged (refer to Exhibit A, 1998 Regular Fee Schedule for specific rates) when a waiver is not granted.
2. Professional groups shall be participating in a parks and recreation, or historic and interpretive seminar, or conference tour.
3. Handicapped groups shall be affiliated with organizations or agencies established for their care, rehabilitation, training, or service. For the purpose of this rule, handicapped is defined as blind and visually impaired, deaf and hard of hearing, mobility impaired, or developmentally disabled.

**B.** Persons serving in a volunteer capacity with a signed volunteer agreement with the Arizona State Parks Board are exempt from all fees.

**C.** No fees shall be charged on Christmas Day.

**D.** The Director or the Director's designee may modify any and all rates prescribed in R12-8-109 and R12-8-110 to include discounts, promotional rates, and other modifications.

**Historical Note**

Adopted effective July 12, 1984 (Supp. 84-4). Repealed due to legislative exemption which was amended into the Arizona Administrative Procedure Act. New Section adopted effective January 1, 1994, under an exemption from the provisions of the Arizona Administrative Procedure Act; filed in the Office of the Secretary of State December 28, 1993 (Supp. 93-4).Adopted effective January 1, 1996, under an exemption from the provisions of the Arizona Administrative Procedure Act; filed in the Office of the Secretary of State December 22, 1995 (Supp. 95-4). Text of Section in effect before January 1, 1996, repealed effective January 11, 1996, pursuant to an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-1005(A)(21) (Supp. 96-1). Amended effective January 1, 1998, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State December 11, 1997 (Supp. 97-4).

**R12-8-111. Camping**

**A.** Camping is permitted only in a camping unit and is subject to the following conditions:
1. No person may camp in a state park for more than 15 days within a 30-day period unless authorized by the Park Manager except that a person may camp for an additional 14 days within a 45-day period during posted, designated long-term stay periods. This limitation does not apply to the concession area of Lake Havasu State Park. The long-term stay provision shall not apply to a visitor using the campsite as a principal place of residence while employed in the area.
2. No occupied campsite may be left unattended overnight without written permission from a Park Ranger.
3. The number of vehicles and persons occupying a camping unit shall not exceed the limits posted at the area entrance or camping unit.

**B.** A camping unit is considered occupied after the appropriate use fee has been paid and the permittee has taken possession by leaving personal property at the site. No person shall occupy a camping unit in violation of instructions from a Park Ranger or when there is reason to believe that the unit is occupied by another camper.

**C.** The occupants of a single vehicle may be allowed to register for more than one camping unit only if their number exceeds the posted occupancy limits for the facility.

**D.** Fees for the use of a camping unit must be paid daily. Payment authorizes use of the facility until 2:00 p.m. of the following day.

**E.** Person shall remove all personal property from a camping unit by 2:00 p.m. when abandoning the site.

**Historical Note**

Former Rule 11; Former Section R12-8-11 repealed, new Section R12-8-11 adopted effective January 28, 1976 (Supp. 76-1). Former Sections R12-8-09 and R12-8-10 renumbered and amended as Section R12-8-111 effective November 1, 1981 (Supp. 81-5). Amended subsection (A), Paragraph (1) effective November 27, 1987 (Supp. 87-4).

**R12-8-112. Campfires**

**A.** Outdoor fires may be ignited only at camping units or day use areas. Fires must be confined to a barbecue, fireplace or incinerator which is located at least 30 feet from any vegetation.

**B.** No fire may be ignited or maintained when a high wind is blowing or when open burning has been prohibited by order of any Park Ranger.

**C.** Every fire shall be attended at all times by a responsible person who has the means of controlling it.

**Historical Note**

Former Rule 12; Former Section R12-8-12 repealed, new Section R12-8-12 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-11 renumbered and amended as Section R12-8-112 effective November 1, 1981 (Supp. 81-5).

**R12-8-113. Vehicles, speed limits and parking**

**A.** Motor vehicles, regardless of whether registered for highway use, may be driven only on maintained roadways, parking areas and in areas designated by signs for vehicle use.

**B.** The operation of motor vehicles is governed by the applicable provisions of the Uniform Act Regulating Traffic on Highways, Title 28, Chapter 6, Arizona Revised Statutes. No person shall drive at a speed greater than is reasonable and prudent under the circumstances, conditions and actual and potential hazards then existing or in excess of posted limits.

**C.** No person may park a vehicle or leave it unattended except in an area designated by a sign as a parking area or parking zone. A Park Ranger may remove or cause to be removed to a place of safety any unattended vehicle illegally left standing upon any roadway or park area which may obstruct the normal movement of traffic or may impair the normal activities of the park.

**Historical Note**

Former Rule 29; Former Section R12-8-13 repealed, new Section R12-8-13 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-12 renumbered and amended as Section R12-8-113 effective November 1,

1981 (Supp. 81-5).

**R12-8-114. Watercraft; launching and mooring**

It is unlawful to moor or launch a watercraft from the shore after such action has been prohibited by the Director and notice of the restriction is posted at the location where the prohibition applies.

**Historical Note**

Former Rule 14; Former Section R12-8-14 repealed, new Section R12-8-14 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-13 renumbered and amended as Section R12-8-114 effective November 1, 1981 (Supp. 81-5).

**R12-8-115. Pets**

**A.** Dogs, cats and other pets shall be kept under physical restraint while in a state park. Leashes shall not exceed six feet in length.

**B.** The restraint requirement does not apply to dogs in areas open to hunting or the conduct of field trials.

**C.** No person shall take or admit any pet into a park building, cabana, or developed beach except for animals trained to assist sight or hearing impaired individuals.

**Historical Note**

Former Rule 15; Former Section R12-8-15 repealed, new Section R12-8-15 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-15 renumbered and amended as Section R12-8-115 effective November 1, 1981 (Supp. 81-5).

**R12-8-116. Glass containers**

No person shall have in their possession glass or ceramic food or beverage containers of any type in a state park area designated as a public beach or swimming area.

**Historical Note**

Adopted effective January 3, 1989 (Supp. 89-1).

**R12-8-117. Reserved**

**R12-8-118. Reserved**

**R12-8-119. Weapons**

**A.** The following definitions apply under this rule:

1. "Improved recreation area" means all camping units, campground roads, amphitheaters, boat launching ramps, developed picnic areas, developed swimming beaches and any other area which has been designated by the director and reserved for an assembly or other temporary gathering of persons.
2. "Prohibited weapon" means a firearm as defined by A.R.S. § 13-3101(4), a BB gun, pellet gun, bow or slingshot.

**B.** Peace officers and private security guards employed by a park concessioner are authorized to carry firearms. No unauthorized person may enter or remain in a park building or an improved recreation area while carrying a prohibited weapon on his person after a reasonable request from a park ranger to remove it. A reasonable request is one made under circumstances where the person or persons carrying the weapon or weapons poses a danger or threat to others lawfully present. If, after a reasonable request is made, a person carrying a prohibited weapon within a park building or improved recreation area chooses to remain in the building or area, that person shall place the weapon in the custody of a park ranger upon demand until the person abandons the building or restricted area.

**C.** Firearms may be transported or stored in a vehicle on any state park area as allowed by A.R.S. § 13-3102(F).

**D.** Licensed hunters may carry lawful hunting weapons in any park area where they may be used to take wildlife and may carry such weapons through an improved recreation area in order to hunt.

**Historical Note**

Adopted effective July 12, 1984 (Supp. 84-4).

**R12-8-120. Fireworks and explosives**

No person shall discharge fireworks or any other explosive device within a state park without a special permit from the park manager.

**Historical Note**

Former Rule 20. Former Section R12-8-20 repealed, new Section R12-8-20 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-20 renumbered and amended as Section R12-8-120 adopted effective November 1, 1981 (Supp. 81-5).

**R12-8-121. Reserved**

**R12-8-122. Commercial use of a park**

**A.** The unauthorized use of any state park for commercial purposes is prohibited. No person may solicit funds, offer to sell any goods or services or otherwise advertise or conduct a business or any portion of a business in a state park without permission from the Director.

**B.** This rule shall not prohibit the entry onto a state park of a commercially marked vehicle for the purpose of recreation, service to a park concessioner or in response to an emergency.

**Historical Note**

Former Rule 22. Former Section R12-8-22 repealed, new Section R12-8-22 adopted effective January 28, 1976 (Supp. 76-1). Former Sections R12-8-22 and R12-8-23 renumbered and amended as Section R12-8-122 effective November 1, 1981 (Supp. 81-5). Amended subsection (A) effective July 12, 1984 (Supp. 84-4).

**R12-8-123. Reserved**

**R12-8-124. Disorderly conduct**

Disorderly conduct is prohibited within a state park. No person shall, with knowledge that he is disturbing the peace of an area or person, make unreasonable noise, engage in violent behavior, use provocative language or gestures or recklessly display or discharge a firearm or deadly weapon. The use of a loudspeaker is prohibited without a permit from the Director or a Park Manager.

**Historical Note**

Former Rule 24. Former Section R12-8-24 repealed, new Section R12-8-24 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-24 renumbered and amended as Section R12-8-124 effective November 1, 1981 (Supp. 81-5).

**R12-8-125. Special Use**

**A.** Special uses, such as organized sporting events, pageants, and assemblies, regardless of whether staged for profit and regardless of whether the public is invited, may be conducted only by a special use permit.

**B.** The Director may reserve portions of state park fee areas for approved special uses. An application shall be submitted by a sponsor at least 15 days in advance of the date requested for the special use event. It shall include all relevant information required by the Director to establish that the proposed special use will be consistent with the purposes of the state park and will not constitute a threat to public safety or unduly inconvenience normal park activities.

**C.** The Director may impose conditions on the conduct of any special use which are necessary in the Director's judgement to protect the area and to maintain its availability as a state park. The director may require, in appropriate cases, that a sponsor

post a deposit against damage and clean-up expenses, carry special insurance and provide adequate medical, sanitary, and security services. If the use is staged for profit, the Director may require the sponsor to enter into an agreement with the Board for a negotiated percentage of gross receipts not to exceed 20%.

**D.** A decision by the Director concerning any special use may be appealed to the Parks Board.

**Historical Note**

Former Rule 25; Former Section R12-8-25 repealed, new Section R12-8-25 adopted effective January 28, 1976 (Supp. 76-1). Former Section R12-8-25 renumbered and amended as Section R12-8-125 effective November 1, 1981 (Supp. 81-5). Amended subsections (A) and (C) effective November 27, 1987 (Supp. 87-4). Amended effective January 1, 1997, under an exemption from A.R.S. Title 41, Chapter 6; filed in the Office of the Secretary of State December 9, 1996 (Supp. 96-4).

**R12-8-126. Penalty for regulation violation**

A person who violates a State Parks Board Regulation commits a Class 2 Misdemeanor. See A.R.S. § 41-511.13.

**Historical Note**

Adopted effective November 1, 1981 (Supp. 81-5).

***Editor's Note: Exhibit A was amended under an exemption from the provisions of the Arizona Administrative Procedure Act (Supps. 98-1 & 97-4). Exhibit A was adopted under an exemption from the provisions of the Arizona Administrative Procedure Act (Supp. 96-4). Exhibit A was amended under an exemption from the provisions of the Arizona Administrative Procedure Act (Supp. 98-4).***

**Exhibit A. 1999 Regular Fee Schedule**

## ARIZONA STATE PARKS
### 1999 REGULAR FEE SCHEDULE
### Effective 7/1/99

**HISTORIC & CONSERVATION PARKS**

| | AGE GROUPS | | | * GROUP DISCOUNTS (Adult Fees) | | |
|---|---|---|---|---|---|---|
| | Ages 0-6 | Ages 7-13 | Ages 14 & Up | 7-12 Persons | 13-18 Persons | 19 Persons & Up |
| Boyce Thompson | (Separate Fee Schedule) | | | | | |
| Oracle | ($4/Vehicle or Special Program Fees) | | | | | |
| Homolovi Ruins | (See Recreation Parks Below) | | | | | |
| Fort Verde | free | 1.00 | 2.00 | 1.80 | 1.60 | 1.40 |
| Jerome | free | 1.00 | 2.50 | 2.25 | 2.00 | 1.75 |
| McFarland | free | 1.00 | 2.00 | 1.80 | 1.60 | 1.40 |
| Red Rock | (See Recreation Parks Below) | | | | | |
| Riordan | free | 2.50 | 4.00 | 3.60 | 3.20 | 2.80 |
| Tombstone | free | 1.00 | 2.50 | 2.25 | 2.00 | 1.75 |
| Tubac | free | 1.00 | 2.00 | 1.80 | 1.60 | 1.40 |
| Yuma Territorial Pr | free | 2.00 | 3.00 | 2.70 | 2.40 | 2.10 |
| Yuma Crossing | free | 2.00 | 3.00 | 2.70 | 2.40 | 2.10 |

* All persons in a group, regardless of age, apply toward a group's number, but only adult fees are discounted.

| OTHER REGULAR FEES (all parks) | |
|---|---|
| Group Day-Use Reserv.:<br>Group Camping Reserv.: | $10.00 - $50.00<br>$25.00 - $50.00 |
| Overnight Parking: | $3.00 |
| Annual Permit (Unlimited): | $65.00 |
| Annual Permit (Limited): | $35.00 |
| Commercial Permit: Rental<br>Commercial Permit: Rental: 2nd Pass | $300.00<br>$100.00 |
| Commercial Permit: Retail<br>Commercial Permit: Retail: 2nd Pass | $250.00<br>$100.00 |

| SPECIAL USE FEES (all parks) | |
|---|---|
| Minimum fees charged per room or area/4 hours | |
| Non-Commercial: | $25.00 |
| Commercial: | $25.00 |
| Damage Deposit: | $25.00 |
| (maximum fees not to exceed $10,000) | |

| INTERPRETIVE FEES (per person) | |
|---|---|
| Special Interp. Program: | 1.00 |
| Interp. Prog. (Yuma Ctr.) | 2.00 |

**RECREATION PARKS**

| | DAILY ENTRANCE | | NIGHTLY CAMPING | | | SPECIAL/LONG-TERM RATES | | |
|---|---|---|---|---|---|---|---|---|
| | Individual/ Bicycle | Per Vehicle (1-4 Persons) | Campsite | Hook-Up Site | Cabana or Boat Site | Campsite | Hook-Up Site | Cabana/Boat Site |
| Alamo | 1.00 | 4.00 | 8.00-10.00 | 15.00 | | 40.00-50.00 | 65.00 | |
| Buckskin Mountain ** | 1.00 | 4.00 / 7.00 | | 15.00 | 20.00 | | 75.00 | 75.00 |
| Buckskin River Island ** | 1.00 | 4.00 / 7.00 | 12.00 | 15.00 | | 60.00 | | |
| Catalina | 1.00 | 4.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Cattail Cove ** | 1.00 | 4.00 / 7.00 | 10.00 | 15.00 | 10.00 | 50.00 | 75.00 | 50.00 |
| Dead Horse Ranch | 1.00 | 4.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Fool Hollow | 1.00 | 5.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Homolovi Ruins | 1.00 | 4.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Lake Havasu ** | 1.00 | 4.00 / 7.00 | 10.00-12.00 | | 10.00 | 50.00-60.00 | | 50.00 |
| Lost Dutchman | 1.00 | 4.00 | 10.00 | | | 50.00 | | |
| Lyman Lake | 1.00 | 4.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Patagonia Lake | 1.00 | 5.00 | 10.00 | 15.00 | 10.00 | 50.00 | 75.00 | 50.00 |
| Picacho Peak | 1.00 | 4.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Red Rock | 1.00 | 5.00 | (Fees charged only for education-related groups: $10.00 per group of 1-6 persons) | | | | | |
| Roper Lake | 1.00 | 4.00 | 10.00 | 15.00 | | 50.00 | 75.00 | |
| Slide Rock | 1.00 | 5.00 | | | | | | |
| Tonto Natural Bridge | 1.00 | 5.00 | | | | | | |

** Denotes parks that charge the higher daily fee on weekends and State-observed holidays.

**KARTCHNER CAVERNS**

| Cave Tours: Age Groups | | | | Daily Entrance | | Camping |
|---|---|---|---|---|---|---|
| Ages 0-6 | Ages 7-13 | Ages 14 & Up | Kartchner Tour Reservation Surcharge | Per Vehicle (1-4 Persons) | Individual / Bicycle | Hook-Up Sites |
| Free | $4.00 | $12.00 | $2.00 Per Ticket | $10.00 | $1.00 | $15.00 |

**Historical Note**

Adopted effective January 1, 1997, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State December 9, 1996 (Supp. 96-4). Amended effective January 1, 1998, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State December 11, 1997 (Supp. 97-4). Amended effective March 2, 1998, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State February 13, 1998 (Supp. 98-1). Amended effective March 2, 1998, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State February 23, 1998 (Supp. 98-1). Amended effective January 1, 1999, under an exemption from A.R.S. Title 41, Chapter 6, specified in A.R.S. § 41-511.05(8); filed in the Office of the Secretary of State November 24, 1998 (Supp. 98-4). Amended by exempt rulemaking at 5 A.A.R. 2173, effective July 1, 1999 (Supp. 99-2).

## ARTICLE 2. OPERATION OF THE BOARD

### R12-8-201. Meetings

**A.** There shall be a minimum of one meeting of the Arizona State Parks Board during each calendar year quarter.

**B.** The time and place of the meetings shall be designated seven days prior to the meeting date by either:
1. The Chairman verbally informing the Director or,
2. Any four members informing the Director in writing, except that in the case of an actual emergency, the Director may be verbally informed.

**C.** The Director, upon being informed of the time and place of a meeting shall:
1. Inform each member of the time and place of the meeting at least five days prior to the meeting date.
2. Prepare a written agenda consisting of the time and place of the meeting and an outline of the business to be considered which shall be verbally accepted by the Chairman or the members who set the meeting prior to distribution.
3. File the finalized agenda with the Secretary of State of the state of Arizona, transmit the agenda to each Board Member, and post the agenda in the administrative headquarters of the Board and at the headquarters area of each operational park at least two days prior to the meeting date.
4. Prepare such explanatory material as he deems desirable concerning the business contained on the agenda and transmit such material to each Board Member.

**D.** In the case of an actual emergency, the time requirements of subsections (B) and (C) above may be adjusted as is appropriate to the circumstances.

**Historical Note**

Adopted effective August 8, 1977 (Supp. 77-4). Former Section R12-8-50 renumbered as Section R12-8-201 without change effective November 1, 1981 (Supp. 81-5).

**R12-8-202. Organization of the Board**

**A.** Selection of officers
1. At the first meeting following December 1st of each year, the members present shall select by majority vote a Chairman, Vice Chairman, and a Secretary to act in such capacity through the first meeting following December 1st of the year following.
2. In the event of a vacancy in any one of the three offices of the Board, the members present at the first meeting following the occurrence of the vacancy shall select a member by majority vote to fill the unexpired term of such officer.
3. In the event of the absence of the Chairman, Vice Chairman, and Secretary from a meeting of the Board set in accordance with these rules, a Presiding Officer shall be selected by majority vote of the members present.

**B.** Duties of the officers shall be as follows:
1. The Chairman shall preside over all meetings and functions of the Board.
2. The Vice Chairman shall take over all the duties of the Chairman in the event of the Chairman's absence from the state, or absence from a meeting set in accordance with these rules, or at the Chairman's direction.
3. The Secretary shall record all proceedings and transactions of the Board and perform such other duties as the Board may from time to time require, and in the event of the absence of the Chairman, and Vice Chairman from a meeting, shall act as Chairman at the meeting and shall appoint an acting Secretary from the members present to carry out duties of that office for that meeting.
4. The Presiding Officer shall act as Chairman at the meeting during which he is selected and shall appoint an acting Secretary to carry on the functions of that office for the meeting.

**Historical Note**

Adopted effective August 8, 1977 (Supp. 77-4). Former Section R12-8-51 renumbered as Section R12-8-202 without change effective November 1, 1981 (Supp. 81-5).

**R12-8-203. Committees**

**A.** There shall be no standing committees.

**B.** Special committees may be appointed by the Chairman to make reports to the Board concerning matters of interest to the Board.

**Historical Note**

Adopted effective August 8, 1977 (Supp. 77-4). Former Section R12-8-52 renumbered as Section R12-8-203 without change effective November 1, 1981 (Supp. 81-5).

**R12-8-204. Procedures at meetings**

**A.** No business other than that contained in the agenda for a meeting shall be conducted at such meetings except by consent of the Chairman or action of the Board.

**B.** Oral communications to the Board at a meeting by persons non members thereof shall be subject to consent of the Chairman or action of the Board.

**C.** A majority of the membership of the Board shall constitute a quorum for the transaction of business at any meeting but a number less than a quorum may adjourn from time to time.

**D.** All actions of the Board at meetings shall be by majority vote of the membership present for the transaction of business.

**E.** The rules laid down in Roberts Rules of Order as summarized in Parliamentary Law at a Glance (on file in the office of the Secretary of State) revised edition, copyright 1949 by E. C. Utter, when not in conflict with the provisions of this Article 2, are hereby adopted as the rules of procedure for the government of the Board when in session.

**Historical Note**

Adopted effective August 8, 1977 (Supp. 77-4). Former Section R12-8-53 renumbered as Section R12-8-204 without change effective November 1, 1981 (Supp. 81-5).

**R12-8-205. Administration of the National Historic Preservation Program in Arizona**

**A.** All federal actions that are identified by the State Historic Preservation Officer to have an adverse effect on cultural resources shall be submitted to the Board for review prior to dissemination of the opinion. The Board shall also review the proposed mitigation of an adverse effect prior to the State Historic Preservation Officer entering into a Memorandum of Agreement with the Advisory Council on Historic Preservation and the Federal Agency Official. The Director is authorized to act on behalf of the Board when time precludes Board review.

**B.** The Board shall annually establish the application deadline for projects requesting fund support through the National Historic Preservation Program.

**C.** The Board shall approve, prior to submission to the federal Government all planning/survey, acquisition and development grant-in-aid projects which request funding through the National Historic Preservation Program. The Director is authorized to execute all contracts necessary to complete all Board approved project applications.

**D.** The Director is authorized to approve amendments to Historic Preservation Fund projects in scope and in fund support not to exceed 20% of the originally approved amount of any individual grant. Any amendment which exceeds the 20% limitation requires Board approval.

**Historical Note**

Adopted effective June 29, 1979 (Supp. 79-3). Former Section R12-8-54 renumbered as Section R12-8-205 without change effective November 1, 1981 (Supp. 81-5).

**R12-8-206. Administration of Arizona register of historic places**

**A.** Purpose of register. The Arizona register of historic places shall be a list of Arizona's historic properties worthy of preservation and serve as an official record of Arizona's historic districts, sites, buildings, structures and objects of national, state and/or local significance in the fields of history, architecture, archaeology, engineering, and culture. The register is for use as a planning tool by federal, state and local governments, private groups and citizens.

**B.** Criteria for evaluation
1. Criteria for evaluation of potential Arizona register properties generally encompass the quality of significance in Arizona history, architecture, archaeology, engineering and culture. Such qualities may be present in districts, sites, buildings, structure and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and also:
   a. Are associated with events that have made a significant contribution to the broad patterns of history; or
   b. Are associated with the lives of historically significant persons; or
   c. Are the embodiment of a distinctive characteristic(s) of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. Yield or may be likely to yield, information important in prehistory or history.

2. Properties that have achieved significance within the past 50 years shall not be considered eligible for the Arizona register unless they are integral parts of districts that meet the criteria or demonstrate exceptional importance as individual properties.

**C.** Processes of registration

1. The State Historic Preservation Officer shall serve as the keeper of the Arizona register.
2. Prior to the listing of any property on the Arizona register, the owner(s) of such property or, in the case of a nominated historic district, all of the owners in the district and other interested parties shall be given at least 30 days prior notification by the State Historic Preservation Officer of the nomination's review by the historic sites review committee in order to provide an opportunity to comment on the nomination of such property or district.
3. Prior to listing any properties on the Arizona register, the historic sites review committee (A.R.S. § 41-1352(D)) shall review nomination forms and documentation and any comments concerning the property's significance or eligibility and make recommendations on eligibility. The historic sites review committee shall also review refusals of nominations upon request.
4. The State Historic Preservation Officer, based on available information, will make the determination whether or not to place the nominated property on the Arizona register.

**Historical Note**
Adopted effective August 26, 1983 (Supp. 83-4).

**R12-8-207. Policy regarding the granting of concessions**

**A.** The State Parks Board may enter into agreement with private or public agencies or persons for the operation and development of concession facilities in areas under the jurisdiction of the State Parks Board subject to the following conditions:

1. An approved master plan or amendment thereto for development and operation of the park in which the concession is to be located reflects the type of proposed concession activity.
2. The proposed concession activity is consistent with the purposes of the Arizona State Parks Board as defined by statute.
3. The State Parks Board has determined that there is a present need for the proposed type of concession operation.
4. A formal request for concession proposals has been issued by the State Parks Board.
5. The State Parks Board has determined that the concession operator which is selected is most qualified to meet the criteria identified in the request for proposal.

**B.** Notice of request for proposal for a concession shall be in the manner prescribed by statute for contracts for professional services executed by state agencies. In addition, the State Parks Board shall give notice of a request for proposal to each person who has, within the last three years, expressed in writing an interest in operating a concession of the particular nature being noticed.

**C.** A copy of this rule shall be provided to all persons who submit concession proposals without prior issuance by the State Parks Board of a formal request for proposal for a concession.

**D.** The State Parks Board may, at its discretion, exempt existing concession renewals, consignment agreements and vending agreements and agreements with nonprofit organizations and local historical societies from the procedures contained in this rule.

**Historical Note**
Adopted effective July 12, 1984 (Supp. 84-4).

## ARTICLE 3. CLASSIFICATION OF HISTORIC PROPERTY FOR PROPERTY TAX PURPOSES

**R12-8-301. Eligibility**

**A.** Any property certified by the State Historic Preservation Officer for property tax purposes must be real property that is listed in the National Register of Historic Places as an individual nomination or as part of an historic district which is listed in the National Register of Historic Places. If within an historic district, it must be determined by the State Historic Preservation Officer to contribute to the character of the district.

**B.** No property shall be certified as historic property on which any business or enterprise is conducted with the intent of earning a profit.

**C.** No property shall be certified by the State Historic Preservation Officer which includes within its legal description buildings, structures, improvements or land areas which do not contribute to the historical character of the property and can be excluded by the modification of the legal description. In the event that the legal description in an application includes such elements or areas, it shall be the responsibility of the applicant to modify the legal description upon notification by the State Historic Preservation Officer.

**D.** The State Historic Preservation Officer, in addition to other reasons established by law, may disqualify a property which has been certified as historic property for property tax purposes if the owner of such property does not comply with these rules and regulations of the Arizona State Parks Board designated "Article 3 -- Classification of Historic Property for Property Tax Purposes".

**Historical Note**
Adopted effective June 30, 1978 (Supp. 78-3). Former Section R12-8-60 renumbered as Section R12-8-301 without change effective November 1, 1981 (Supp. 81-5). Amended effective August 26, 1983 (Supp. 83-4).

**R12-8-302. Application for certification**

If space is not provided on the forms for application issued by the appropriate County Assessor, the following information shall be submitted to the County Assessor with the application:

1. Complete name and address of the owner.
2. Legal description and address of the subject property.
3. Name of National Register District in which the property is located, if applicable.
4. Brief description of:
   a. The significance of the subject property.
   b. The current use of the subject property.
   c. Any recent additions, alterations or improvements.
5. Two - eight by ten black and white photographs of the property. Each photograph shall be labeled on the back in soft pencil with the name and address of the property, owner's name, direction of the photograph, and date of the photograph.
6. The owner's written consent for the viewing of the property by the State Historic Preservation Officer or representative at any reasonable time.

**Historical Note**
Adopted effective June 30, 1978 (Supp. 78-3). Former Section R12-8-61 renumbered as Section R12-8-302 without change effective November 1, 1981 (Supp. 81-5). Amended effective August 26, 1983 (Supp. 83-4).

**R12-8-303. Minimum maintenance/restoration standards**

**A.** The owner of a certified historic property shall maintain the property so as to preserve the historical integrity of the features, materials, appearance, workmanship and environment.

**B.** Any certified historic property which is condemned by local authorities shall be subject to disqualification by the State Historic Preservation Officer.

**C.** Any maintenance rehabilitation or restoration treatment other than normal housekeeping activities shall be submitted to the State Historic Preservation Officer in both written and graphic form with appropriate support information for review prior to project implementation. The State Historic Preservation Officer may respond within 30 days of the date of submittal of the material with a statement of changes or modifications required prior to approval. If no statement is issued within said time, the treatment shall be deemed approved.

**D.** Review by the State Historic Preservation Officer will be done to assure that the planned treatment for historic buildings is in accordance with the guidelines established in the U.S. Government *Cyclical Maintenance for Historic Buildings*, available from the U.S. Government Printing Office and the Department of the Interior, National Park Service, publication entitled, The *Secretary of the Interior's Standards for Historic Preservation Projects and The Secretary of the Interior's Standards for Rehabilitation*, available from the Technical Preservation Services Division. A copy of all three documents are filed with the Secretary of State and are herein incorporated by reference.

**E.** The owner shall assure that any treatment is carried out in accordance with the standards established by the State Historic Preservation Officer as provided in subsection (D) of this rule.

**F.** If a question occurs between the requirements of the State Historic Preservation Officer or the representatives and the local building officials or any applicable laws, a meeting of the appropriate representatives shall be called by the owner to discuss the question and reach an equitable solution.

**Historical Note**

Adopted effective June 30, 1978 (Supp. 78-3). Former Section R12-8-62 renumbered as Section R12-8-303 without change effective November 1, 1981 (Supp. 81-5). Former Section R12-8-303 repealed, former Section R12-8-304 renumbered and amended as Section R12-8-303 effective August 26, 1983 (Supp. 83-4).

**R12-8-304. Documentation requirements, reports and inspection**

**A.** Reports. In addition to other reports which the State Historic Preservation Officer may request as authorized by law, prior to April first of each year, the owner of a certified historic property shall submit the following information for the prior year's activity to the State Historic Preservation Officer:

1. A statement signed by the owner indicating that the property has been operated and maintained in accordance with the laws, and rules applicable to the classification of the historic property for property tax purposes.
2. A written description and before-and-after photographs of any maintenance, rehabilitation or restoration carried out during the period.

**B.** Inspection. The owner of a classified historic property shall permit the State Historic Preservation Officer or representative the right to inspect, as desired by the State Historic Preservation Officer, classified historic properties. The State Historic Preservation Officer shall notify the owner prior to inspection.

**Historical Note**

Adopted effective June 30, 1978 (Supp. 78-3). Former Section R12-8-63 renumbered as Section R12-8-304 without change effective November 1, 1981 (Supp. 81-5). Former Section R12-8-304 renumbered and amended as Section R12-8-303, former Section R12-8-305 renumbered and amended as Section R12-8-304 effective August 26, 1983 (Supp. 83-4).

**R12-8-305. Renumbered**

**Historical Note**

Adopted effective June 30, 1978 (Supp. 78-3). Former Section R12-8-64 renumbered as Section R12-8-305 without change effective November 1, 1981 (Supp. 81-5). Former Section R12-8-305 renumbered and amended as Section R12-8-304 effective August 26, 1983 (Supp. 83-4).

Repealed

**TITLE 12. NATURAL RESOURCES**

**CHAPTER 9. REPEALED**

***Editor's Note: This Chapter was repealed by operation of law. A.R.S. § 41-1001 excludes political subdivisions of the state from the definition of "agency." Therefore, the rules of the Maricopa County Parks and Recreation Commission are no longer certified by the Attorney General's Office nor are they filed in the Secretary of State's Office as specified in Attorney General opinion I93-002.***

Repealed

**TITLE 12. NATURAL RESOURCES**

**CHAPTER 10. REPEALED**

***Editor's Note: This Chapter was repealed by operation of law. A.R.S. § 41-1001 excludes political subdivisions of the state from the definition of "agency." Therefore, the rules of the Yavapai County Parks and Recreation Commission are no longer certified by the Attorney General's Office nor are they filed in the Secretary of State's Office as specified in Attorney General opinion I93-002.***

Repealed

**TITLE 12. NATURAL RESOURCES**

**CHAPTER 11. REPEALED**

(Authority: A.R.S. § 11-935 et seq.)

***Editor's Note: This Chapter was repealed by operation of law. A.R.S. § 41-1001 excludes political subdivisions of the state from the definition of "agency." Therefore, the rules of the Parks Commission of Navajo County are no longer certified by the Attorney General's Office nor are they filed in the Secretary of State's Office as specified in Attorney General opinion I93-002.***

Repealed

**TITLE 12. NATURAL RESOURCES**

**CHAPTER 12. REPEALED**

***Editor's Note: This Chapter was repealed by operation of law. A.R.S. § 41-1001 excludes political subdivisions of the state from the definition of "agency." Therefore, the rules of the Pima County Parks and Recreation Commission are no longer certified by the Attorney General's Office nor are they filed in the Secretary of State's Office as specified in Attorney General opinion I93-002.***

# TITLE 12. NATURAL RESOURCES

## CHAPTER 14. ARIZONA POWER AUTHORITY

(Authority: A.R.S. § 30-101 et seq.)

### ARTICLE 1. GENERAL

*Article 1, consisting of Section R12-14-101, adopted effective November 1, 1993 (Supp. 93-4).*

*Article 1, consisting of Sections R12-14-101 and R12-14-102, repealed effective November 1, 1993 (Supp. 93-4).*

Section
R12-14-101. Definitions
R12-14-102. Repealed

### ARTICLE 2. AVAILABILITY OF LONG-TERM POWER; APPLICATION FOR ELECTRIC SERVICE; POWER PURCHASE CERTIFICATES

*Article 2, consisting of Sections R12-14-201 through R12-14-203, adopted effective November 1, 1993 (Supp. 93-4).*

*Article 2, consisting of Sections R12-14-201 and R12-14-202, repealed effective November 1, 1993 (Supp. 93-4).*

Section
R12-14-201. Availability of Long-term Power; Contract Negotiations
R12-14-202. Application for Electric Service
R12-14-203. Power Purchase Certificates; Application

### ARTICLE 3. SERVICE TO PURCHASERS

*Article 3, consisting of Sections R12-14-301 and R12-14-302, adopted effective November 1, 1993 (Supp. 93-4).*

*Article 3, consisting of Sections R12-14-301 thru R12-14-303, repealed effective November 1, 1993 (Supp. 93-4).*

Section
R12-14-301. Authority's Service to Purchasers
R12-14-302. Systems and Operation Plans
R12-14-303. Repealed

### ARTICLE 4. ADMINISTRATION OF POWER

*Article 4, consisting of Sections R12-14-401 through R12-14-405, adopted effective November 1, 1993 (Supp. 93-4).*

*Article 4, consisting of Sections R12-14-401 thru R12-14-403, repealed effective November 1, 1993 (Supp. 93-4).*

Section
R12-14-401. Sale, Use, Transfer, and Administration of Long-term Power
R12-14-402. Switching of Loads Among Delivery Points
R12-14-403. Wheeling and Operating Agreements
R12-14-404. Disposition of Short-Term Power
R12-14-405. Cooperative Actions

### ARTICLE 5. RECORDS

*Article 5, consisting of Section R12-14-501, adopted effective November 1, 1993 (Supp. 93-4).*

*Article 5, consisting of Sections R12-14-501 and R12-14-502, repealed effective November 1, 1993 (Supp. 93-4).*

Section
R12-14-501. Purchaser's Records
R12-14-502. Repealed

### ARTICLE 6. RULES OF PRACTICE AND PROCEDURE

*Article 6, consisting of Sections R12-14-601 through R12-14-607, adopted effective November 1, 1993 (Supp. 93-4).*

*Article 6, consisting of Sections R12-14-601 thru R12-14-613, repealed effective November 1, 1993 (Supp. 93-4).*

Section
R12-14-601. General Procedure
R12-14-602. Pleadings, Motions and Other Documents
R12-14-603. Proceedings
R12-14-604. Multiple Claims
R12-14-605. Rehearing and Appeals
R12-14-606. Arguments on Rehearing
R12-14-607. Conferences
R12-14-608. Repealed
R12-14-609. Repealed
R12-14-610. Repealed
R12-14-611. Repealed
R12-14-612. Repealed
R12-14-613. Repealed

### ARTICLE 1. GENERAL

**R12-14-101. Definitions**

In this Chapter, the definitions set forth in A.R.S. Title 30, Chapter 1 and in A.R.S. Title 45, Chapter 10 shall apply and, unless the context otherwise requires, the following definitions shall also apply:

1. "Banked Energy" means the electric energy held under Banking arrangements for later delivery to a Purchaser.
2. "Banking" means arrangements whereby a Purchaser contracts with another entity to retain a portion of the Purchaser's electric energy for later delivery.
3. "Conference" means an informal proceeding before the Commission which does not require a hearing in order to dispose of the subject matter.
4. "Control Area" means a part of a Power system or a combination of Power systems to which a common generation control scheme is applied.
5. "District" means any Power or water organization comprehended by A.R.S. Title 30, Chapter 1 or A.R.S. Title 45 (as renumbered and set forth in A.R.S. Title 48) and formed pursuant to law.
6. "Hearing Officer" means a person designated pursuant to Section R12-14-602(E) to act on behalf of the Commission in any proceeding before the Commission.
7. "Long-term Power" means a supply of Power which is available to the Authority for a period in excess of 366 consecutive days and which is subject to the jurisdiction of, and disposition by, the Authority, including any capacity or energy recaptured by the Authority and any capacity or energy tendered or relinquished by any Purchaser.
8. "Party" means any entity which is authorized by statute or by these rules to participate in an Authority proceeding.
9. "Pleading" means any application, petition, complaint, protest, objection, or motion required or permitted to be filed with the Authority.
10. "Power Pooling Agreement" means an agreement for aggregating or commingling the Long-term Power supplies of two or more Purchasers.
11. "Power Purchase Certificate" means the certificate required of a Purchaser by A.R.S. § 30-151 et seq. prior to the date upon which the Purchaser enters into a Power Sales Contract.
12. "Power Sales Contract" means a contract under which the Authority sells Long-term Power to a Purchaser.
13. "Preference" means the priority of entitlement to Power

pursuant to A.R.S. § 30-125 or A.R.S. § 45-1708.

14. "Purchaser" means any Qualified Entity which holds a Power Purchase Certificate and has entered into a Power Sales Contract to purchase Power from the Authority under A.R.S. Title 30, Chapter 1, or which has entered into a Power Sales Contract to purchase Power from the Authority under A.R.S. Title 45, Chapter 10.
15. "Qualified Entity" means any District, Operating Unit, person, or other entity which is privileged to purchase Power from the Authority pursuant to A.R.S. Title 30, Chapter 1 or A.R.S. Title 45, Chapter 10.
16. "Recapture" means the recovery or retaking of Long-term Power by the Authority from a Purchaser which is excess to the Purchaser's needs for reallocation among other Qualified Entities.
17. "Secretary" means the person designated by the Commission to act as the official Secretary or as the Assistant Secretary of the Authority.
18. "Service Territory" means the legal descriptions and boundaries described in a Power Purchase Certificate, or any amendment thereto, in which the holder may utilize Long-term Power purchased under a Power Sales Contract pursuant to A.R.S. Title 30, Chapter 1.
19. "Short-Term Power" means any supply of Power made available by or through the Authority for a period of 366 consecutive days or less.
20. "Wheeling" means delivery of Power over the transmission system of another party.

**Historical Note**

Former Rule Article I. Not in original publication, correction, paragraph (5) (Supp. 75-1). Former Section R12-14-01 renumbered as Section R12-14-101 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-102. Repealed**

**Historical Note**

Former Rule Article II. Former Section R12-14-02 renumbered as Section R12-14-102 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

## ARTICLE 2. AVAILABILITY OF LONG-TERM POWER; APPLICATION FOR ELECTRIC SERVICE; POWER PURCHASE CERTIFICATES

**R12-14-201. Availability of Long-term Power; Contract Negotiations**

**A.** Except as provided in R12-14-401(B), when the Authority decides that a supply of Long-term Power is available, the Authority shall give public notice of its intent to receive applications for electric service from prospective Purchasers. The public notice shall include a schedule for a public information Conference where the Authority shall provide information and details concerning the supply of Long-term Power available to Qualified Entities.

**B.** The Authority shall give public notice of the schedule for a public comment Conference to be held not more than 60 days after the public information Conference. All interested parties may appear at the Conference and present oral and written comments on the Authority's Long-term Power proposal.

**C.** In addition to any other requirements for notice, public notice required by subsection (A) and subsection (B) of this Section shall be mailed to existing Purchasers and prospective Purchasers which have indicated an interest, in writing, to the Authority and to other Qualified Entities known to the Authority and identified on the Authority's current mailing list. Notice shall also be given by publication in a newspaper of statewide circulation once a week for two consecutive weeks.

**D.** If a Qualified Entity desires to enter into a Power Sales Contract, it shall file an application for electric service pursuant to Section R12-14-202. Such application shall be filed on or before the due date specified in the Authority's notice of intent to receive applications for electric service.

**E.** Within 60 days after the due date for the filing of an application for electric service, the Authority shall notify all interested parties of the names and addresses of the entities which are eligible to enter into a Power Sales Contract. Such notification shall also set forth a proposed allocation of Long-term Power to the eligible entities.

**F.** Within 90 days after notification of eligibility and of the proposed allocation, the Authority shall present a draft form of contract to each eligible prospective Purchaser and contract negotiations shall commence.

**G.** After a reasonable period for negotiations, the Authority shall prepare Power Sales Contracts and fix a date for contract signings.

**H.** The time periods specified in this Section may be modified by the Authority to serve the needs of the Authority, the prospective Purchasers, or the public.

**I.** In the allocation or reallocation of Long-term Power, consideration shall be given, first, to the financial interests and obligations of the Authority and, second, to the needs and interests of the Purchasers, customers of Purchasers, and prospective Purchasers.

**J.** Within the classes or preference priorities established by A.R.S. § 30-125(A), Long-term Power shall be allocated equitably among Qualified Entities in the same class based upon the needs of such entities and the type of use of Long-term Power within the Service Territory.

**K.** In the allocation or reallocation of Long-term Power, the Authority shall give due consideration to a prospective Purchaser's access to other sources of Power available from the Federal Government.

**Historical Note**

Former Rule Article III. Not in original publication, correction, paragraph (5) (Supp. 75-1). Former Section R12-14-11 renumbered as Section R12-14-201 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-202. Application for Electric Service**

**A.** Any Qualified Entity which desires to purchase Long-term Power shall file a written application for electric service with the Authority. The application shall include the following:

1. The applicant's proposed use of Long-term Power.
2. The points of delivery at which the applicant desires to receive electric service.
3. The annual energy requirements for which the applicant is willing to contract, stated in kilowatt-hours, for each point of delivery.
4. The maximum capacity requirements for which the applicant is willing to contract, stated in kilowatts, for each point of delivery during a continuous 12-month period.
5. A statement of the applicant's kilowatt and kilowatt-hour sales or usage during each of the 24 months immediately preceding the date of application, divided into convenient reference classifications, such as residential, commercial, irrigation pumping, industrial, public use, or such other convenient classification used by the applicant or recognized in the electric utility industry.

**B.** Application forms for electric service shall be available at the Authority's business office.

**C.** If the Authority determines that an applicant is eligible to enter into a Power Sales Contract for Long-term Power offered under A.R.S. Title 30, Chapter 1, the applicant, within 30 days after receipt of notice of eligibility, shall file an application for a Power Purchase Certificate pursuant to R12-14-203. The holder of an existing Power Purchase Certificate shall not be required to re-apply unless the Long-term Power applied for will be used in a Service Territory that differs from the Service Territory specified in the applicant's existing Power Purchase Certificate.

**D.** The time period specified in subsection (C) may be modified by the Authority to serve the needs of the applicant or of the Authority.

**Historical Note**

Former Rule Article IV. Not in original publication, correction, Paragraph (6) (Supp. 75-1). Former Section R12-14-12 renumbered as Section R12-14-202 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-203. Power Purchase Certificates; Application**

**A.** An application for a Power Purchase Certificate, or an application to amend an existing Power Purchase Certificate, shall be dated, signed, and verified by the applicant or an authorized representative. The original and five copies of the application and any documents, maps, or other written material shall be filed with the Authority.

**B.** Application forms for Power Purchase Certificates shall be available at the office of the Authority.

**C.** The application shall include the information required by A.R.S. § 30-152 and the following:

1. A statement of the nature of the applicant's business, the applicant's legal status, and mailing address.
2. An accurate description of the desired Service Territory.
3. The name and mailing address of the principal executive officer or secretary of each District or Operating Unit and of any natural person or other entity engaged in the distribution of Power within the Service Territory or contiguous to the Service Territory.
4. The amount of Long-term Power estimated for use in each separate purpose, whether sale or distribution of Long-term Power is to be on a profit or a non-profit basis, and whether the applicant will use Long-term Power, resell it, or both.
5. A description of applicant's electric system in sufficient detail for the Authority to judge the applicant's capability to use Long-term Power. If the applicant intends to use an electric system owned by another entity, a copy of any intended or existing agreement with the owner pertaining to such use shall accompany the application. If the applicant proposes to construct, purchase, lease, or otherwise obtain the use of a system for sale or distribution of Long-term Power, the details of such proposal shall be provided.

**D.** The applicant shall explain any arrangements with other entities for the use of electrical equipment or facilities required for the applicant to use Long-term Power. If any other entity claims ownership of, or transmission rights on, any electric facilities to be utilized or duplicated by the applicant, the applicant shall disclose such information. Where the applicant's arrangements appear to conflict with the rights of another entity, the applicant may file an affidavit signed by an authorized officer of the entity affected, disclosing that satisfactory arrangements for applicant's use have been consummated.

**E.** Upon the filing of the application, the Authority shall immediately set a date for a hearing pursuant to A.R.S. § 30-152.

**F.** A Power Purchase Certificate shall remain in effect only during such time as the holder thereof has an existing Power Sales Contract with the Authority.

**G.** The legal descriptions and boundaries set forth in a Power Purchase Certificate shall fix and establish the Service Territory in which the holder may utilize Power under a Power Sales Contract.

**H.** Power Purchase Certificates shall not be assigned without the prior written approval of the Authority.

**Historical Note**

Adopted effective November 1, 1993 (Supp. 93-4).

## ARTICLE 3. SERVICE TO PURCHASERS

**R12-14-301. Authority's Service to Purchasers**

**A.** The Authority shall contract with a Purchaser to deliver Long-term Power, provided transmission capability is available to ensure delivery of Long-term Power to the Purchaser at the point or points of delivery to be designated in the Power Sales Contract. The Authority may also contract with the Purchaser to provide opportunities for connection between the Purchaser's electric system and the electric system of other entities.

**B.** Before Long-term Power is made available to a Purchaser, the Purchaser shall provide evidence of transmission capability to take and receive Long-term Power at the locations and voltages designated by the Authority. Unless otherwise agreed by the Authority, the Authority will not provide facilities for transmission or electric service. The Authority may investigate and obtain alternative or additional sources of transmission service to serve the needs of a Purchaser and the Purchaser shall pay for the service in proportion to the benefits it receives.

**C.** By agreement with one or more Purchasers, the Authority may construct electric lines and related facilities of the voltage and capacity needed to serve a Purchaser or Purchasers or as warranted by available loads. The agreement must assure full payment by the users of operating costs, depreciation and interest, and any other costs or expenses associated with any such project, during a 40-year amortization period or such other period established by law or contract. If the Authority constructs such facilities, the incremental costs shall be added to the charges to any Purchaser or other user benefitting from such facilities.

**D.** With the aid of Purchasers, the Authority shall endeavor to maintain a system of load scheduling and records so that the Authority may reasonably predict:

1. A Purchaser's current and future Power needs,
2. Whether a Purchaser should be allowed or required to relinquish or surrender Long-term Power which is surplus to that Purchaser's needs, and
3. Whether a Purchaser will have Long-term Power which is temporarily or permanently surplus to the Purchaser's needs.

**E.** The Authority shall periodically perform surveys to identify sources of Power or transmission service which may be temporarily or permanently available to the Authority and identify possible markets for such resources and for Recaptured, relinquished, tendered, or temporarily-available surplus Long-term Power.

**Historical Note**

Former Rule Article V. Former Section R12-14-21 renumbered as Section R12-14-301 (Supp. 85-6). Section

repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-302. Systems and Operation Plans**

For the Authority's information and assistance in the administration of its Power Sales Contracts, any Purchaser which does not manage and operate its own electric transmission and distribution system shall, at the Authority's request, submit a plan for the use and administration of Long-term Power. The Purchaser's plan shall be accompanied by such maps, plans, specifications, and agreements as may be necessary to disclose the nature and extent of such plan.

**Historical Note**

Former Rule Article VI. Not in original publication, correction, subsections (C) and (D) (Supp. 75-1). Former Section R12-14-22 renumbered as Section R12-14-302 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-303. Repealed**

**Historical Note**

Former Rule Article VII. Former Section R12-14-23 renumbered as Section R12-14-303 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

**ARTICLE 4. ADMINISTRATION OF POWER**

**R12-14-401. Sale, Use, Transfer and Administration of Long-term Power**

**A.** No Power Pooling Agreement affecting Power under the Authority's jurisdiction shall be made without the prior written approval of the Authority, which approval shall not be unreasonably withheld.

**B.** Subject to the terms of its Power Sales Contract with the Authority, a Purchaser may tender or relinquish surplus Long-term Power to the Authority for resale by the Authority. The Authority shall use its best efforts to sell such relinquished or tendered Long-term Power and shall apply the net proceeds from the sale toward the Purchaser's payment obligations under its Power Sales Contract. Long-term Power so relinquished or tendered to the Authority shall be returned to the Purchaser not more than 60 days after the Authority's receipt of the Purchaser's written notice that it requires a return of the tendered or relinquished Long-term Power to meet the Purchaser's loads.

**C.** No tender or relinquishment of Long-term Power shall relieve the Purchaser of its obligations under its Power Sales Contract nor shall such tender or relinquishment be deemed a Recapture by the Authority unless:

1. Such tender or relinquishment is for the unexpired term of the Purchaser's Power Sales Contract; and
2. The Authority has contracted to sell such tendered or relinquished Long-term Power for a term and at a price not less than the term and price contained in the Purchaser's Power Sales Contract.

**D.** Subject to the terms of the Purchaser's Power Sales Contract, if, for any reason, all or a portion of the Long-term Power purchased from the Authority exceeds the Purchaser's electric load for a period of three consecutive contract years, the Authority may Recapture all or a portion of the Purchaser's Long-term Power. The Authority shall give the Purchaser at least 30 days prior written notice of a hearing on the Authority's intention to Recapture Long-term Power. At such hearing, the Authority shall determine if the Purchaser's Long-term Power can be reasonably expected to exceed, in whole or in part, the Purchaser's future needs. Any portion or all of the Purchaser's Long-term Power which the Authority determines to be excess to the Purchaser's needs may be Recaptured by the Authority. Any such Recapture shall be effective 60 days after the date upon which the Purchaser receives a "Notice of Recapture" from the Authority, or at such later date as is specified in the "Notice of Recapture". Any Recapture of Long-term Power shall reduce the Purchaser's entitlement to Long-term Power by the amount of the Recapture. Unless the context otherwise requires, the provisions of Article 6 shall apply to any hearing required by this paragraph.

**E.** Except as permitted by a Power Sales Contract, a Purchaser shall not transfer or assign a Power Sales Contract, or any interest therein, unless first approved by the Authority. Unless otherwise provided by law or contract, an assignment or transfer of a Power Sales Contract, or any interest therein, shall not relieve the Purchaser from any obligation under such contract without the prior written consent of the Authority.

**F.** An assignment of a Power Sales Contract, or any interest therein, shall not be approved by the Authority unless such assignment is made in good faith and for a justifiable cause or reason. The Authority shall not approve any assignment which:

1. Conflicts with any provision of law;
2. Conflicts with the Authority's regulations;
3. Conflicts with any provision of a Purchaser's Power Sales Contract;
4. Has the effect of disrupting established Power practices, system, or facilities;
5. May result in an increased cost of service to other Purchasers; or
6. May confer a Preference upon an entity not entitled thereto.

Further, an assignment shall not be approved if the Authority determines that an assignment is discriminatory or that Long-term Power or rights to Long-term Power should be recaptured by the Authority for reallocation and sale or other disposition to other Qualified Entities.

**G.** A Power Sales Contract may restrict or prohibit the wholesale sale or resale of Long-term Power.

**H.** Long-term Power shall be used only for the purposes and uses for which allocated and sold. Long-term Power allocated and sold pursuant to A.R.S. Title 30, Chapter 1 shall be used only within the Service Territory established in the Purchaser's Power Purchase Certificate, unless otherwise authorized by the Authority. Banking of electric energy and exchange of Banked Energy between Purchasers in the same Control Area may be authorized under terms and conditions approved by the Authority.

**Historical Note**

Former Rule Article VIII. Not in original publication, correction, subsection (G) (Supp. 75-1). Former Section R12-14-31 renumbered as Section R12-14-401 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-402. Switching of Loads Among Delivery Points**

Unless prohibited by law, regulation, or contract, and whenever the capacities, contractual relationships, and arrangement of facilities so permit, the Authority may allow a Purchaser to change its electric service from one point of delivery to one or more other points of delivery. Each new point of delivery shall be a separate point of delivery for billing purposes unless the new point of delivery replaces an existing point of delivery. Changing electric service between points of delivery of different Purchasers shall not be permitted without the prior written consent of the Authority.

**Historical Note**

Former Rule Article IX. Former Section R12-14-32 renumbered as Section R12-14-402 (Supp. 85-6). Section

repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-403. Wheeling and Operating Agreements**

A Purchaser who desires to enter into an agreement with regard to power operations, transmission, or Wheeling involving Long-term Power shall first petition the Authority for permission to do so. The petition shall state all relevant facts and shall set forth the reasons for the proposed agreement. The petitioner shall also file copies of any proposed agreement and such other information, data, and documents as may be requested by the Authority. An agreement for the transmission or Wheeling of Long-term Power over the facilities of others shall not be made without the prior written approval of the Authority. An operating, transmission, or Wheeling agreement shall not be approved if it conflicts with the provisions of any Power Sales Contract, may result in disruption of established electric service, operations, practices, systems, or facilities, or may endanger service to other Purchasers, to third parties, or to the general public.

**Historical Note**

Former Rule Article X. Former Section R12-14-33 renumbered as Section R12-14-403 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-404. Disposition of Short-Term Power**

The Authority may negotiate and enter into a mutually acceptable contract or contracts with Qualified Entities for the sale, purchase, exchange, or other disposition of Short-term Power.

**Historical Note**

Adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-405. Cooperative Actions**

**A.** Pursuant to A.R.S. § 30-129 and A.R.S. Title 45, Chapter 10, any Party may petition the Authority for information, advice, aid, or assistance regarding any matter within the jurisdiction of the Authority. Such petition shall be in writing and shall include the names of all interested or affected entities, the basis for the requested information, advice, aid, or assistance; the location of any project involved; the action requested of the Commission and any other information or relevant matter which may assist the Commission in acting upon the request.

**B.** If a Conference regarding a petition filed with the Authority is deemed appropriate, the Commission shall schedule a Conference pursuant to R12-14-607. All interested entities shall be notified of such Conference, and any interested entity may make an oral or written presentation and file documents, reports or other material relevant to the requested cooperative action.

**C.** The Authority staff or consultants to the Authority may make such preliminary studies, surveys, or investigations as the Commission directs with respect to any requested cooperative action. If the Commission determines that a hearing or other proceeding is appropriate, the Commission may take appropriate interim action and may enter into letters of understanding or preliminary agreements with the petitioner and all other interested entities.

**Historical Note**

Adopted effective November 1, 1993 (Supp. 93-4).

## ARTICLE 5. RECORDS

**R12-14-501. Purchaser's Records**

At the request of the Authority, a Purchaser shall file copies of contracts for the purchase, sale, exchange, transmission and Wheeling of Long-term Power between it and any entity other than the Authority, together with all current rate schedules and amendments thereto.

**Historical Note**

Former Rule Article XI. Former Section R12-14-41 renumbered as Section R12-14-501 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-502. Repealed**

**Historical Note**

Former Rule Article XII. Not in original publication, correction subsections (A) and (B) (Supp. 75-1). Former Section R12-14-42 renumbered as Section R12-14-502 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

## ARTICLE 6. RULES OF PRACTICE AND PROCEDURE

**R12-14-601. General Procedure**

**A.** Unless otherwise required by law, all hearings shall be scheduled at the convenience of the Commission. Unless otherwise ordered by the Commission, hearings shall be held at the Authority's business office in Phoenix, Arizona.

**B.** Unless otherwise provided by law, the Commission may reschedule, recess, continue, or adjourn a hearing. Unless otherwise provided by law, the Commission may extend or shorten a specified time period upon the motion of any Party.

**C.** Except as otherwise required by law, the Arizona Administrative Procedure Act (A.R.S. § 41-1001 et seq.) shall apply to all hearings or rehearings before the Commission.

**D.** All pleadings and any supporting documents, exhibits, or other communications or correspondence pertaining to any matter before the Commission shall be filed with the Secretary at the Authority's business office in Phoenix, Arizona.

**E.** The Commission may designate a member of the Commission, a member of the Authority staff, or any other individual to act as a Hearing Officer in any Commission proceedings.

**F.** If necessary or appropriate, the staff of the Authority may participate in any proceeding as a Party.

**Historical Note**

Correction, not in original publication; former Rules of Practice and Procedure, Article I, adopted effective November 14, 1952, renumbered as Section R12-14-601 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-602. Pleadings, Motions and Other Documents**

**A.** A proceeding under A.R.S. § 30-152 shall be initiated by filing an "application". A proceeding under A.R.S. § 30-171 shall be initiated by filing an initial pleading entitled "petition", "complaint", "protest", or "objection", whichever most clearly addresses the issue raised by the Party. Responsive pleadings shall designate in the caption or heading the identity and interest of the Party responding to an initial pleading.

**B.** The specific grounds of any application, petition, complaint, protest, or objection filed with the Authority shall be set forth in the initial pleading; provided, however, that A.R.S. § 30-171(D) shall control the grounds upon which any initial pleading may be filed pursuant to A.R.S. § 30-171.

**C.** All motions shall be in writing, shall indicate the nature of the relief requested, and shall be accompanied by a memorandum indicating the legal points, statutes, and authorities relied upon. Motions shall be served on all other Parties to the proceeding. Any Party opposing a motion shall file and serve any answering memorandum within 20 days after service of such motion. Within ten days after service of an answering memorandum, the moving Party may file and serve a reply memorandum directed only to matters raised by the answering memorandum.

**D.** All pleadings shall be signed and verified by the Party or by its authorized representative.

**E.** An original and five copies of each pleading shall be filed with the Secretary. One copy of each pleading shall be served upon each other Party appearing in the matter.

**F.** Amendments to pleadings shall not be accepted for filing unless received by the Secretary at least 20 days prior to the date of any scheduled hearing.

**G.** Pleadings or other documents permitted or required to be filed with the Authority may be transmitted by mail, personal service, or other method which shall assure delivery, but all such pleadings and documents must be actually received for filing on or before 5:00 p.m. of the last day prescribed for such filing. Whenever a Party has the right or is required to do some act or take some proceedings within a prescribed period after the service of a notice or other paper upon him and the notice of paper is served upon him by mail, five days shall be added to the prescribed period.

**Historical Note**

Correction, not in original publication; former Rules of Practice and Procedure, Article II, adopted effective November 14, 1952, renumbered as Section R12-14-602 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-603. Proceedings**

**A.** Unless the Commission has selected a Hearing Officer to preside, the Chairman of the Commission shall preside at all proceedings and shall rule upon all questions concerning prehearing, hearing or post-hearing procedures and evidence. Any Commissioner may attend any proceeding and may ask relevant questions of any Party.

**B.** During a proceeding, the Secretary shall act as Clerk and shall administer oaths; mark, maintain, and preserve exhibits and other evidence; and perform such other duties as may be assigned by the Chairman, Hearing Officer, or members of the Commission.

**C.** The Authority's legal counsel shall attend all proceedings and advise the presiding officer on all legal matters arising out of or related to the proceeding. The Authority's legal counsel shall also prepare any pleadings, briefs, or other documents pertaining to the Authority's interests and shall prepare notices, proposed orders, and other procedural documents requested by the Commission. If the Commission determines that it, the Authority staff, or the presiding officer requires independent legal counsel, the Authority shall retain such legal counsel pursuant to applicable Arizona law.

**Historical Note**

Correction, not in original publication; former Rules of Practice and Procedure, Article III, adopted effective November 14, 1952, renumbered as Section R12-14-603 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-604. Multiple Claims**

When more than one claim for relief is presented in any matter pending before the Authority, the Commission or Hearing Officer may direct the entry of a final decision on one or more but fewer than all of the Parties' claims only upon an express determination that there is no just reason for delay. In the absence of such determination, any action or decision which addresses fewer than all the Parties' claims shall not terminate the matter as to any of the Parties' claims, and the action or decision is subject to revision before the entry of the final decision of all Parties' claims.

**Historical Note**

Correction, not in original publication; former Rules of Practice and Procedure, Article IV, adopted effective November 14, 1952, renumbered as Section R12-14-604 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-605. Rehearing and Appeals**

**A.** Subject to A.R.S. § 30-172, any final decision may be vacated and a rehearing granted on motion of the aggrieved Party for any of the following causes materially affecting such Party's rights:

1. Irregularity in a proceeding of the Commission, or of the Hearing Officer or of the prevailing Party, or any order or abuse of discretion whereby the moving Party was deprived of a fair proceeding;
2. Misconduct of the prevailing Party;
3. Accident or surprise which could not have been prevented by ordinary prudence;
4. Newly discovered material evidence could not be discovered or produced at the time of the hearing or prehearing with the exercise of reasonable diligence;
5. Error in the admission or rejection of evidence or other errors of law occurring during a proceeding;
6. Any action or decision of the Commission which is the result of passion or prejudice; or
7. Any action or decision of the Commission which is not justified by the evidence or is contrary to law.

**B.** A rehearing may be granted to all or any of the Parties and on all or part of the issues. On a motion for rehearing, the Commission may reopen the proceedings; take or admit additional testimony and other evidence; and modify, amend, rescind, or affirm any final decision.

**C.** A motion for rehearing shall be in writing, shall specify generally the grounds upon which the motion is based, and shall be filed not later than 20 days after a final decision. If the motion for rehearing is based upon the general ground that the Commission erred in admitting or rejecting evidence, the Commission shall review all rulings upon objections to evidence. If the motion for rehearing is based upon the general ground that the final decision of the Commission is not justified by the evidence, the Commission shall review the sufficiency of the evidence.

**D.** When a motion for rehearing is based upon affidavits, the affidavits shall be served with the motion. Any opposing Party shall have ten days after such service within which to serve opposing affidavits, which period may be extended for an additional period not exceeding 20 days either by the Commission for good cause shown or by the Parties upon written stipulation. The Commission may permit reply affidavits.

**E.** Not later than 20 days after the effective date of any final decision, the Commission, on its own initiative, may order a rehearing for any reason for which a rehearing might have been granted upon motion of a Party. After giving the Parties notice and an opportunity to be heard, the Commission may grant a rehearing, upon a motion timely served, for a reason not stated in a motion for rehearing.

**F.** A rehearing, if granted, shall be only a rehearing of the question or questions with respect to which the decision is alleged to be erroneous.

**G.** An order granting a rehearing shall state specifically the issues or questions presented and the ground or grounds upon which the rehearing is granted.

**H.** Any final decision is subject to appeal to the Superior Court of Maricopa County, Arizona, as provided by A.R.S. § 30-173, or as otherwise provided by law.

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article V, adopted effective November 14, 1952, renumbered as Section R12-14-605 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-606. Arguments on Rehearing**
Applications for oral argument on rehearing shall be granted or denied in the discretion of the Commission and the Commission shall fix the time limits for oral argument.

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article VI, adopted effective November 14, 1952, renumbered as Section R12-14-606 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-607. Conferences**
**A.** Pursuant to public notice, the Commission may hold, call, or invite an informal Conference concerning any subject matter within the jurisdiction of the Authority. The Conference agenda shall be determined by the Commission. A Conference is intended to provide information and facts with regard to any pending or proposed course of action by the Commission and no formal or binding action shall be taken by the Commission at a Conference.
**B.** The Commission shall establish the date, time, and place of any Conference and may continue, adjourn, or reschedule any Conference.

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article VII, adopted effective November 14, 1952, renumbered as Section R12-14-607 (Supp. 85-6). Section repealed, new Section adopted effective November 1, 1993 (Supp. 93-4).

**R12-14-608. Repealed**

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article VIII, adopted effective November 14, 1952, renumbered as Section R12-14-608 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

**R12-14-609. Repealed**

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article IX, adopted effective November 14, 1952, renumbered as Section R12-14-609 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

**R12-14-610. Repealed**

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article X, adopted effective November 14, 1952, renumbered as Section R12-14-610 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

**R12-14-611. Repealed**

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article XI, adopted effective November 14, 1952, renumbered as Section R12-14-611 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

**R12-14-612. Repealed**

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article XII, adopted effective November 14, 1952, renumbered as Section R12-14-612 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

**R12-14-613. Repealed**

**Historical Note**
Correction, not in original publication; former Rules of Practice and Procedure, Article XIII, adopted effective November 14, 1952, renumbered as Section R12-14-613 (Supp. 85-6). Section repealed effective November 1, 1993 (Supp. 93-4).

# TITLE 12. NATURAL RESOURCES

## CHAPTER 15. DEPARTMENT OF WATER RESOURCES

(Authority: A.R.S. § 45-101 et seq.)

### ARTICLE 1. DEFINITIONS, FEES, PROCEDURAL RULES FOR HEARINGS

Section
R12-15-151. Fee Schedule
R12-15-152. Fee Credit Account

### ARTICLE 2. PROCEDURAL RULES

*Article 2, consisting of Sections R12-15-201 through R12-15-224, adopted effective June 13, 1984.*

Section
R12-15-201. Scope of article; construction; waiver; other procedural requirements
R12-15-202. Definitions
R12-15-203. Appearance and practice of parties before Department
R12-15-204. Filing; signature; service
R12-15-205. Time computation; time extensions
R12-15-206. Amendments
R12-15-207. Correction of clerical mistakes
R12-15-208. Request for review of or hearing on a decision where a hearing has not been held
R12-15-209. Commencement of a contested matter; notice required; appointment of hearing officer; place of hearing
R12-15-210. Rescheduling or continuance of a hearing
R12-15-211. Motions
R12-15-212. Consolidation
R12-15-213. Parties; intervention; limited participation
R12-15-214. Prehearing conferences
R12-15-215. Prefiling of evidence, proposed testimony or lists of witnesses
R12-15-216. Discovery
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R12-15-218. Subpoenas; motions to quash or modify
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R12-15-220. Recording and transcription of hearings
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R12-15-223. Final decision
R12-15-224. Ex parte communications

### ARTICLE 3. STOCKPOND AND OTHER SURFACE WATER RULES

Section
R12-15-301. Issuance of certificates
R12-15-302. Obligations of owner; change of ownership
R12-15-303. Multiple applications for water rights
R12-15-304. Reserved
R12-15-305. Reserved
R12-15-306. Reserved
R12-15-307. Reserved
R12-15-308. Reserved
R12-15-309. Reserved
R12-15-310. Renumbered

### ARTICLE 4. LICENSING TIME-FRAMES

*Article 4, consisting of Sections R12-15-401 and Table A, adopted effective December 31, 1998; filed in the Office of the Secretary of State July 28, 1998 (Supp. 98-3).*

Section
R12-15-401. Licensing Time-frames
Table A. Licensing Time-frames

### ARTICLE 5. RESERVED

### ARTICLE 6. RESERVED

### ARTICLE 7. ASSURED AND ADEQUATE WATER SUPPLY

*Article 7, consisting of Sections R12-15-701 through R12-15-725, adopted effective February 7, 1995.*

Section
R12-15-701. Definitions - Assured and Adequate Water Supply Programs
R12-15-702. Assured Water Supply Requirement - Application for Certificate of Assured Water Supply; Application for Designation of Assured Water Supply; Application for Analysis of Assured Water Supply
R12-15-703. Assured Water Supply Requirement - Physical Availability; Continuous Availability; Legal Availability
R12-15-704. Assured Water Supply Requirement - Water Quality
R12-15-705. Assured Water Supply Requirement - Consistency with Management Goal
R12-15-706. Assured Water Supply Requirement - Consistency with Management Plan
R12-15-707. Assured Water Supply Requirement - Financial Capability
R12-15-708. Assured Water Supply Requirement - Ownership Interest; Change in Ownership
R12-15-709. Assured Water Supply Requirement - Review; Modification; Revocation; Prohibition on Transfer of Groundwater Allocation
R12-15-710. Assured Water Supply Requirement - Notice; Objection; Hearing; Issuance of Designation of Assured Water Supply; Revocation of Certificate or Designation of Assured Water Supply; Review
R12-15-711. Assured Water Supply Requirement - Annual Reports
R12-15-712. Assured Water Supply Requirement - Unplatted Development Plan; Analysis of Assured Water Supply
R12-15-713. Assured Water Supply Requirement - State Land Department/General Plan, Development Plan, Secondary Plan
R12-15-714. Assured Water Supply Requirement - Fees
R12-15-715. Definitions - Adequate Water Supply Program
R12-15-716. Adequate Water Supply Requirement - Application for Water Report; Application for Designation of Adequate Water Supply; Application for Analysis of Adequate Water Supply
R12-15-717. Adequate Water Supply Requirement - Physical Availability
R12-15-718. Adequate Water Supply Requirement - Water Quality
R12-15-719. Adequate Water Supply Requirement - Ownership Interest
R12-15-720. Adequate Water Supply Requirement - Review; Modification; Revocation
R12-15-721. Adequate Water Supply Requirement - Notice; Objection; Hearing; Issuance of Designation of Ade-

quate Water Supply; Revocation of Designation of Adequate Water Supply; Review
R12-15-722. Adequate Water Supply Requirement - Annual Reports
R12-15-723. Adequate Water Supply Requirement - Master Plan Communities and Unplatted Development Plans; Analysis of Adequate Water Supply
R12-15-724. Adequate Water Supply Requirement - State Land Department/General Plan, Development Plan, Secondary Plan
R12-15-725. Adequate Water Supply Requirements - Fees

**ARTICLE 8. WELL CONSTRUCTION AND LICENSING OF WELL DRILLERS**

*Article 8, consisting of Sections R12-15-801 through R12-15-821, adopted effective March 5, 1984.*

Section
R12-15-801. Definitions
R12-15-802. Scope of Article
R12-15-803. Well drilling and abandonment requirements; licensing and supervision requirements
R12-15-804. Application for well drilling license
R12-15-805. Examination for well drilling license
R12-15-806. License fee; issuance and term of licenses; renewal; display of license
R12-15-807. Single well license
R12-15-808. Revocation of license
R12-15-809. Notice of intention to drill
R12-15-810. Authorization to drill
R12-15-811. Minimum well construction requirements
R12-15-812. Special aquifer conditions
R12-15-813. Unattended wells
R12-15-814. Disinfection of wells
R12-15-815. Removal of drill rig from well site
R12-15-816. Abandonment
R12-15-817. Exploration wells
R12-15-818. Well location
R12-15-819. Use of well as disposal site
R12-15-820. Request for variance
R12-15-821. Special requirements
R12-15-822. Capping of open wells

**ARTICLE 9. WATER MEASUREMENT**

*Article 9, consisting of Sections R12-15-901 through R12-15-905, adopted effective December 27, 1982.*

Section
R12-15-901. Definitions
R12-15-902. Installation of Approved Measuring Devices
R12-15-903. Approved Water Measuring Devices and Methods
R12-15-904. Water Measuring Method Reporting Requirements
R12-15-905. Accuracy of Approved Measuring Devices
R12-15-906. Repair and Replacement of Approved Measuring Devices
R12-15-907. Calculation of Irrigation Water Deliveries
R12-15-908. Measurement of Water by One Person on Behalf of Another
R12-15-909. Alternative Water Measurement Devices, Methods, and Reporting

**ARTICLE 10. REPORTING REQUIREMENTS FOR ANNUAL REPORTS, ANNUAL ACCOUNTS, OPERATING FLEXIBILITY ACCOUNTS, AND CONVEYANCES OF GROUNDWATER RIGHTS**

Section
R12-15-1001. Definitions
R12-15-1002. Form of annual account or annual report
R12-15-1003. Filing of annual reports/accuracy
R12-15-1004. Filing of an annual report required by A.R.S. § 45-467 or 45-632 on behalf of the responsible party
R12-15-1005. Management plan monitoring and reporting requirements
R12-15-1006. Reporting requirements for holders of recovery well permits
R12-15-1007. Reporting requirements for annual account
R12-15-1008. Information required to maintain an operating flexibility account
R12-15-1009. Credits to operating flexibility account
R12-15-1010. Operating flexibility account; tailwater
R12-15-1011. Statement of operating flexibility account
R12-15-1012. Rule of construction
R12-15-1013. Retention of records for annual accounts and annual reports
R12-15-1014. Late filing or payment; extension and late payment of fees
R12-15-1015. Reporting requirements for convenyances of grandfathered rights and groundwater withdrawal permits

**ARTICLE 11. INSPECTIONS AND AUDITS**

*Article 11, consisting of Sections R12-15-1101 and R12-15-1102, adopted effective August 31, 1992 (Supp. 92-3).*

Section
R12-15-1101. Inspections
R12-15-1102. Audits

**ARTICLE 12. DAM SAFETY PROCEDURES**

Section
R12-15-1201. General provisions
R12-15-1202. Professional engineering requirement
R12-15-1203. Application procedure
R12-15-1204. Final inspection and license of approval
R12-15-1205. Plans and specifications
R12-15-1206. Construction control

**ARTICLE 1. DEFINITIONS, FEES, PROCEDURAL RULES FOR HEARINGS**

**R12-15-151. Fee Schedule**

**A.** The Department shall only accept or take action on an application or filing upon payment of the appropriate fee as listed below. Payment may be made by cash, check, or by entry in an existing Department fee-credit account established pursuant to R12-15-152.

**B.** The following fees shall be paid:

| 1. SURFACE WATER | FEE ($) |
|---|---|
| a. Application for permit to appropriate | |
| i. Less than 50 acre feet | 50.00 |
| ii. 50 acre feet or more | 75.00 |
| b. Permit to appropriate | |
| i. Less than 50 acre feet | 25.00 |
| ii. 50 acre feet or more | 50.00 |
| c. Claim of water right for a stockpond and application for certification | 10.00 |
| d. Certificate of water right for stockpond | 30.00 |
| e. Issue certificate of water right (except stockpond) | 50.00 |
| f. Application for severance and transfer of water right | 500.00 |
| g. Application to transport water out of state | 500.00 |
| h. Assignment | |
| i. Assignment of application for permit to appropriate, statement of claim, or claim | |

of water right for a stockpond. . . . . .10.00
ii. Assignment and reissuance of permit to appropriate . . . . . .20.00
iii. Assignment and reissuance of certificate of water right (except stockpond) . . . . . .35.00
iv. Assignment and reissuance of certificate of water right for a stockpond. . . . . .20.00

2. GROUNDWATER
a. Application for groundwater withdrawal permit, modifications and renewals (except applications for hydrologic testing and temporary dewatering permits). . . . . .150.00
b. Application for permit for hydrologic testing and temporary dewatering, modifications, and renewals . . . . . .50.00
c. Groundwater withdrawal permit. . . . . .50.00
d. Convey groundwater withdrawal permit (except for permits for temporary electrical energy generation, temporary dewatering, hydrologic testing, and groundwater replenishment district withdrawals) . . . . . .35.00
e. Application for notice of authority to irrigate in an irrigation nonexpansion area . . . . . .50.00
f. Convey or reissue notice of authority to irrigate in an irrigation nonexpansion area . . . .35.00

3. WATER EXCHANGES
a. Statement of water exchange contract . . . . . .100.00
b. Application for water exchange permit . . . . .150.00
c. Water exchange permit . . . . . .100.00
d. Renew or modify water exchange permit. . . .100.00
e. Notice of water exchange . . . . . .150.00

4. WELLS
a. Notice of intent to drill and issue drilling card . . . . . .10.00
b. Application for permit to drill new or replacement well and issue drilling card . . . . .50.00
c. Reissue drilling card . . . . . .10.00
d. Permit to drill new or replacement well . . . . . .30.00
e. Registration of exempt well . . . . . No charge
f. Registration of nonexempt well . . . . . .10.00
g. Late registration of any well (post 7/16/82) . . .10.00
h. Well assignments (single or group of wells by same owner). . . . . .10.00
i. Well driller's licenses (except single well license) . . . . . .50.00
j. Reissue or renew unexpired well driller's license . . . . . .10.00
k. Reactivate expired well driller's license. . . . . .20.00
l. Single well license . . . . . No charge
m. Well capping . . . . . .300.00 minimum plus actual expenses over 300.00

5. GRANDFATHERED RIGHTS
a. Application for certificate of grandfathered right . . . . . .75.00
b. Late application for certificate of grandfathered right . . . . . .100.00
c. Convey or reissue certificate of grandfathered right . . . . . .35.00
d. Application for type 1 nonirrigation grandfathered right associated with retired irrigation l and. . . . . .50.00
e. Application to retire an irrigation grandfathered right from irrigation to nonirrigation . . . . . .100.00
f. Application for restoration of retired irrigation grandfathered right . . . . . .50.00
g. Purchase of flexibility account credit balance . . . . . .100.00

6. SUBSTITUTION OF ACRES
a. Application to substitute irregularly shaped acres in an irrigation nonexpansion area or an active management area. . . . . .50.00
b. Application to substitute flood-damaged acres in an irrigation nonexpansion area or an active management area. . . . . .100.00
c. Application to substitute CAP acres in an irrigation nonexpansion area . . . . . .50.00
d. Application to substitute, or to reverse substitution of, CAP acres in an active management area . . . . . .100.00

7. ADEQUATE AND ASSURED WATER SUPPLY
a. Application for certificate of assured water supply or report of adequate water supply . . . .50.00
b. Review of study and plans as a function of development size:
i. First 20 lots. . . . . 0
ii. Next 80 lots. . . . . $1.00/lot
iii. Next 900 lots. . . . . .50/lot
iv. Next 9,000 lots . . . . . .25/lot
v. Over 10,000 lots . . . . . .10/lot
c. Certificate of assured water supply . . . . . .50.00

8. UNDERWATER WATER STORAGE SAVINGS AND REPLENISHMENT PROGRAM
a. Application for underground storage facility permit . . . . . .750.00
b. Underground storage facility permit. . . . . .500.00
c. Convey underground storage facility permit .300.00
d. Application for groundwater savings facility permit . . . . . .500.00
e. Groundwater savings facility permit . . . . . .350.00
f. Convey groundwater savings facility permit . . . . . .300.00
g. Application for water storage permit . . . . . .250.00
h. Water storage permit. . . . . .100.00
i. Convey water storage permit . . . . . .300.00
j. Application for recovery well permit
i. First 10 wells . . . . . 50/well
ii. Over 10 wells . . . . . 10/well
k. Recovery well permit
i. First 10 wells . . . . . 50/well
ii. Over 10 wells . . . . . 10/well

9. CERTIFICATES OF GROUNDWATER OVERSUPPLY
a. Application for certificate of groundwater oversupply . . . . . .150.00
b. Certificate of groundwater oversupply. . . . . .50.00

10. LAKES
a. Application for permit to fill or refill a body of water
i. Poor quality groundwater . . . . . .150.00
ii. Interim . . . . . .50.00
b. Permit to fill or refill a body of water
i. Poor quality groundwater . . . . . .75.00
ii. Interim . . . . . .30.00
c. Application for determination of substantial capital investment to fill or refill a body of water . . . . . .50.00
d. Application and permit for temporary emergency use of water to fill a body of water . . . .50.00

11. SAFETY OF DAMS
a. Application for review . . . . . No charge

b. Application filing fee - review of plans and studies based upon dam cost
   i. First $100,000 . . . . . 2.0%
   ii. Next $400,000. . . . . 1.5%
   iii. Next $500,000. . . . . 1.0%
   iv. Remainder over $1,000,000 . . . . . .5%
c. Safety Inspections
   i. Per inspection . . . . . .100.00
   ii. Plus, per foot of height . . . . . .2.00

12. WEATHER MODIFICATION
   a. Application for weather modification license . . . . . .100.00
   b. License to manufacture or sell weather modification equipment . . . . . .10.00
13. COPIES
   a. Photocopies. . . . . .25/page
   b. Microfiche copies . . . . . .30/page
   c. Computer reports:
      i. First page of report . . . . . .15.00
      ii. Additional page. . . . . .25 each
   d. Certified copies. . . . . 2.75/page

**C.** In addition to the fees listed above, the applicant shall pay the Department the actual cost of mailing and/or publishing any legal notice required by statute.

**Historical Note**
Adopted effective October 8, 1982 (Supp. 82-5).
Amended effective June 29, 1994 (Supp. 94-2). Amended effective March 3, 1995 (Supp. 95-1).

**R12-15-152. Fee credit account**
Any person who may pay more than two hundred dollars in fees annually may apply to the Department to have a fee credit account established for periodic billing. The Department retains discretion to refuse to establish a credit account and shall set reasonable terms for payment and interest for any credit account established pursuant to this rule. Any person who has established a credit account for fees with the Department who does not comply with the terms of the account shall lose the privilege of maintaining such an account.

**Historical Note**
Adopted effective October 8, 1982 (Supp. 82-5).

## ARTICLE 2. PROCEDURAL RULES

**R12-15-201. Scope of article; construction; waiver; other procedural requirements**

**A.** These procedural rules shall govern:
1. Requests for review of or a hearing on a decision of the Director where a hearing has not been held, and any hearings held pursuant to such requests;
2. Requests for review or hearing of a decision of the Director where a hearing has been held, and any rehearings held pursuant to such requests;
3. All other hearings or rehearings before the Director, except as provided in subsections (B) and (C) of this rule.

**B.** These procedural rules do not apply to hearings on proposed rules held pursuant to A.R.S. § 41-1002.

**C.** Except for R12-15-222 and R12-15-223, these procedural rules do not apply to:
1. Public hearings on the proposed boundaries of groundwater basins and sub-basins, on the proposed designation of subsequent active management areas or subsequent irrigation non-expansion areas, and on the proposed conversion of an irrigation non-expansion area to an active management area;
2. Public hearings on the proposed modification of the boundaries of a groundwater basin, groundwater sub-basin, subsequent active management area or subsequent irrigation non-expansion area; and,
3. Public hearings on proposed management plans for active management areas or on proposed modifications of such plans.

**D.** These rules shall be construed to secure the accurate, just, speedy and inexpensive determination of every proceeding.

**E.** The Director or the hearing officer may waive application of any of these rules if good cause appears and if the waiver is not in conflict with law and does not adversely affect the substantial interests of any party.

**F.** In connection with any particular contested matter, reference should also be made to special procedural requirements prescribed by the applicable section or sections of Title 45, Arizona Revised Statutes. In any case where the procedure is set forth neither by law, by these rules nor by any other regulation or order of the Director, the Director or the hearing officer may refer to the Rules of Civil Procedure for the Superior Courts of Arizona for guidance but none of those rules shall be binding upon the Director, the hearing officer or the parties unless so ordered by the Director or the hearing officer.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3). The reference to R12-14-223 in subsection (C) corrected to read R12-15-223 (Supp. 93-1).

**R12-15-202. Definitions**
In this Article, unless the context otherwise requires:
1. "Chief Counsel" means the Chief Counsel of the Arizona Department of Water Resources or one or more attorneys designated by the Chief Counsel to act on the Chief Counsel's behalf.
2. "Contested matter" means any proceeding governed by these rules which the Director has noticed for hearing.
3. "Decision" means a written determination or order of the Director which affects the legal rights, duties or privileges of a person.
4. "Department" means the Arizona Department of Water Resources.
5. "Director" means the Director of Water Resources or one or more Deputy Directors duly authorized by the Director to act on the Director's behalf.
6. "Hearing officer" means a person appointed by the Director to hear a contested matter and make recommendations to the Director.
7. "License" means the whole or part of any license, permit, certificate, approval, consent, registration, notice of intent, variance or similar permission or denial issued or given by the Director or the Department.
8. "Party" means a person named or admitted as a party in a contested matter.
9. "Person" means an individual, public or private corporation, company, partnership, firm, association, society, estate, trust, any other private organization or enterprise, the United States, any state, territory or country or a governmental entity, political subdivision or municipal corporation organized under or subject to the constitution and laws of this state.
10. "Proper objection" means a written objection or protest authorized by Title 45, Arizona Revised Statutes, or rules adopted pursuant to that Title, timely filed with the Director, signed by the objector of the objector's attorney, giving the objector's name and address, stating in clear and concise language the particular legal and factual reasons for the objection or objection or protest and setting forth credible evidence to support those reasons.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-203. Appearance and practice of parties before Department**
Unless otherwise provided by law, a party may appear on his own behalf or be represented by counsel.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-204. Filing; signature; service**
**A.** All papers permitted or required to be filed under these rules shall be filed in the public docket maintained in the Office of the Director. Papers may be personally filed with the Docket Supervisor or may be mailed to the Docket Supervisor at 99 East Virginia, Phoenix, Arizona 85004. Where a hearing is required to be held in an Active Management Area (AMA), the Director or the hearing officer may direct a party to file with both the Docket Supervisor and the AMA Office.
**B.** All papers filed in the public docket shall be typewritten, double-spaced and on 8 ½ x 11 inch paper. If an oversized exhibit or an exhibit that cannot be photocopied is designated pursuant to A.R.S. § 12-909 as part of an administrative record on judicial review, the party submitting such an exhibit shall provide the Docket Supervisor with a duplicate of that exhibit.
**C.** Every paper filed in the public docket under these rules shall be signed by the person filing it or by an attorney who represents the person, in the attorney's individual name. A signature on a paper filed in the public docket constitutes a certificate that the signer has read the paper, that to the best of the signer's knowledge, information and belief there is good ground to support the paper, and that it is not interposed for delay.
**D.** A written response by an attorney to a notice of hearing creates a presumption that the attorney represents the party.
**E.** Copies of all papers filed shall, at or before the time of filing, be served on the Director or the hearing officer, the Chief Counsel and all parties to the proceeding.
**F.** When under these rules service is required or permitted to be made upon a person represented by an attorney, the service shall be made upon the attorney.
**G.** When service is required or permitted under these rules, the service shall be made by mail or personally in accordance with Rule 5(c) of the Rules of Civil Procedure for the Superior Courts of Arizona. Service by mail is complete upon mailing, except when a paper is required to be filed with the Department within a time certain. In such cases, a paper shall not be deemed filed until actually received by the Docket Supervisor.
**H.** All notices of hearings and decisions on contested matters shall be served by certified mail.
**I.** When service is made under these rules, proof of service shall be filed in the public docket. Proof of service shall be made by a written certification or other statement that service was made, signed by a person making service.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-205. Time computation; time extensions**
**A.** In computing any period of time prescribed or allowed by these rules, by order of the Director or the hearing officer or by any applicable statute, the day of the act or event from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday or legal holiday, in which event the period runs until the end of the next day which is not a Saturday, Sunday or legal holiday. When the period of time prescribed or allowed is less than seven days, intermediate Saturdays, Sundays and legal holidays shall be excluded from the computation.
**B.** When a person has the right or is required to perform some act or take some action within a prescribed period after an act or an event and the person receives notice of the act or event by mail, the applicable time periods shall run as follows:
1. Except as provided in R12-15-208, subsection (C), when a person receives notice of the act or event by mail, other than certified, registered or express mail, five days shall be added to the prescribed period. The prescribed period shall begin to run on the day following the date of mailing.
2. When a person receives notice of the act or event by certified, registered or express mail, the prescribed period shall begin to run on the day following receipt of the notice or other paper.

**C.** Unless otherwise provided by law, the Director or the hearing officer may for good cause extend any time limits prescribed by these rules. Requests for time extensions must be made in writing prior to the expiration of the original period.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-206. Amendments**
Upon a motion or on the initiative of the Director or the hearing officer, the Director or the hearing officer may amend or permit the amendment of any paper filed in a contested matter if the amendment does not adversely affect the substantial interest of any party.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-207. Correction of clerical mistakes**
Upon a motion or on the initiative of the Director or the hearing officer, the Director or the hearing officer may correct clerical mistakes in decisions, orders, rulings, any process issued by the Department or other parts of the record, and errors in the record arising from oversight or omission. The Director or the hearing officer shall give all parties and the Chief Counsel notice of any corrections made pursuant to this rule.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-208. Request for review of or hearing on a decision where a hearing has not been held**
**A.** This rule applies to requests for review of or a hearing on a decision where a hearing has not been held. Rule R12-15-222 applies to requests for rehearing or review of a decision where a hearing has been held.
**B.** When the Director makes a decision without holding a hearing, a person who is the subject of the decision or who is otherwise authorized by statute or rule, including a person who has filed a proper objection, may request review of or a hearing on the decision pursuant to this rule.
**C.** When a person receives notice of a decision by mail, other than certified, registered or express mail, the decision shall be presumed to have been received on the fifth day after the date of the decision. In such cases, five days shall not be added to the prescribed period for filing a request for review or a hearing.
**D.** Unless otherwise ordered by the Director, a request for review or a hearing shall be filed within 15 days after the date of receipt of the decision. A response to such a request may be filed within 15 days after service of the request. No other pleadings shall be permitted, unless specifically authorized by the Director.

**E.** A request for review or a hearing shall be in writing, shall clearly identify the decision at issue and shall set forth in clear and concise language what relief is sought, such as a different decision, sanction or penalty, a hearing or other relief, and why relief should be granted. A request for review or a hearing may seek multiple forms of relief or relief in the alternative.

**F.** The Director shall respond to a request for review or a hearing filed under this rule by letter or by issuing a notice of hearing.

**G.** A letter granting review or a notice of hearing shall specify the grounds on which the review or hearing is granted. The grounds may include issues not raised in the request for review or a hearing. The review or hearing shall cover only the specified grounds.

**H.** The Director, within the time for filing a request for review or a hearing prescribed by subsection (D) of this rule, may order review or a hearing on his own initiative.

**I.** If a person does not request review or a hearing within the time period prescribed by subsection (D) of this rule, the person has waived any right to review or a hearing. If no person requests review or a hearing within the prescribed period and the Director does not on his own initiative order review or a hearing within the prescribed period, the decision without a hearing is the final decision of the Director.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-209. Commencement of a contested matter; notice required; appointment of hearing officer; place of hearing**

**A.** A contested matter is commenced when the Director issued a notice of hearing in accordance with the requirements of A.R.S. § 41-1009(A). The Director shall serve the notice of hearing on each of the named parties. The named parties shall include any person who has filed a proper objection.

**B.** The notice of hearing shall contain those statements required by A.R.S. § 41-1009(B).

**C.** The notice of hearing may include, among other things:
1. A statement of any relevant judicially noticeable facts or any information within the Department's records or specialized knowledge upon which the Department in tends to rely;
2. Information on the procedures to be followed prior to, during or after the hearing;
3. The appointment of a hearing officer;
4. If the hearing is noticed pursuant to A.R.S. § 45-634, a statement of the action which would bring the affected party into compliance with the applicable statues and rules.

**D.** The Director may appoint a hearing officer to hear a contested matter and make recommendations to the Director.

**E.** Unless otherwise provided by law, hearings may be held at any place determined by the Director.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-210. Rescheduling or continuance of a hearing**

The Director or the hearing officer may reschedule or continue a hearing on his own initiative. Upon a motion by a party, the Director or the hearing officer may reschedule or continue a hearing if good cause appears and the rescheduling or continuance does not adversely affect the substantial interests of any party. The motion shall state the reasons for the requested rescheduling or continuance.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-211. Motions**

Except for a motion made during a hearing, any motion pertaining to a contested matter shall be filed in writing with the Director or the hearing officer. In the case of a prehearing or post-hearing motion, any party or the Department may file a response within five days after service of such motion, unless otherwise ordered by the Director or the hearing officer. No oral argument shall be heard on prehearing or post-hearing motions, unless otherwise ordered by the Director or the hearing officer.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-212. Consolidation**

Upon a motion or on the initiative of the Director or the hearing officer, the Director or the hearing officer may consolidate cases involving a common question of law or fact or a common party may be consolidated for hearing of any or all of the matters in issue, where such consolidation may tend to avoid unnecessary costs or delay.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-213. Parties; intervention, limited participation**

**A.** All parties to a contested matter are bound by the determinations of the Director or the hearing officer relating to the hearing and by the decision of the Director.

**B.** Upon a motion made in writing at least five days prior to the date of the hearing, the Director or the hearing officer may permit a person to intervene as a party to a contested matter upon a showing that the potential intervenor will be materially and directly affected by the outcome of the contested matter. Requests for intervention may be granted only if such intervention will aid in disposition of the case, will not unduly delay the proceedings and will not otherwise burden the hearing process or unfairly prejudice the rights of existing parties. A person who has a right to file an objection or protest under Title 45, Arizona Revised Statutes or rules adopted pursuant to that title and fails to file a proper objection shall not be permitted to intervene.

**C.** Upon a motion made in writing prior to the close of the hearing, the Director or the hearing officer may permit an interested person to participate in a contested matter solely for the purpose of filing a legal memorandum. Such a person shall not be considered a party to the contested matter.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-214. Prehearing conferences**

**A.** Upon a motion by a party or on the initiative of the Director or the hearing officer, the Director or the hearing officer may order a prehearing conference. The Director or the hearing officer shall give all parties and the Chief Counsel written notice of a prehearing conference. At a prehearing conference, any actions that will secure the just, speedy and inexpensive determination of the case may be considered, including the following:
1. Formulation, reduction or simplification of the issues;
2. Disposition of preliminary legal issues, including ruling on prehearing motions;
3. Stipulations to facts and legal conclusions;
4. Stipulations to the admission of certain evidence or admission of facts;
5. Identification of documentary evidence or other physical evidence and disposition of any question about the authenticity of that evidence;
6. Identification of witnesses;

7. Amendments to the pleadings, including the notice of hearing; and,
8. Resolution of the case without a hearing.

**B.** At or after a prehearing conference, the Director or the hearing officer may issue appropriate orders.

**C.** The action taken by the Director or the hearing officer at or after a prehearing conference shall be made a part of the record and shall control the subsequent course of the proceedings.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-215. Prefiling of evidence, proposed testimony or lists of witnesses**
The Director or the hearing officer may order that documentary or physical evidence, proposed testimony or lists of witnesses be filed prior to the hearing. Any evidence not filed as ordered shall not be admitted or considered at the hearing. If the Director or the hearing officer orders the prefiling of evidence, proposed testimony or lists of witnesses, the Director or the hearing officer may order that no requests for discovery pursuant to or R12-15-218(A)(2) may be submitted until after the date set for the prefiling.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3). Section number corrected (Supp. 93-1).

**R12-15-216. Discovery**
A party or the Department may obtain discovery only through depositions pursuant to R12-15-217 and subpoenas duces tecum pursuant to R12-15-218.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-217. Depositions**

**A.** If it appears that a prospective witness either may be unable to attend or cannot be subpoenaed to attend a hearing and it is necessary to take the deposition of the prospective witness in the interests of justice, the Director or the hearing officer may issue an order permitting the deposition to be taken by a party or the Department. A person desiring to take a deposition shall file a written motion, setting forth the reasons why such deposition should be taken, the name and address of the person to be deposed, the matters on which testimony is sought, the documents or other tangible evidence, if any, sought to be produced and the time and place proposed for taking the deposition.

**B.** The order of the Director or the hearing officer shall identify the person to be deposed, state the scope of the testimony to be taken and the documents or other tangible evidence, if any, to be produced, and specify the time when, the place where and the designated officer before whom the person is to testify or produce documents or other tangible evidence. The order shall be served on all parties and the Chief Counsel a reasonable time in advance of the time fixed for taking the deposition.

**C.** The person requesting the taking of a deposition shall pay a witness and mileage fee in accordance with A.R.S. § 12-303.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-218. Subpoenas; motions to quash or modify**

**A.** Upon written application by any party or the Department, the Director or the hearing officer may, if justice demands:
1. Issue subpoenas requiring the attendance and testimony of witnesses whose testimony is material; and,
2. Issue subpoenas duces tecum requiring the production of documentary or other tangible evidence at any designated place. The written application shall identify with reasonable particularity the evidence sought and the facts to be proved by that evidence and include a showing of the general relevance and materiality of the evidence.

**B.** The person requesting issuance of a subpoena shall prepare and serve the subpoena and shall pay a witness mileage fee in accordance with A.R.S. § 12-303.

**C.** Any person to whom a subpoena is directed may, prior to the time for compliance specified in the subpoena but not more that five days after the date of service of the subpoena, file a motion with the Director or the hearing officer to quash or modify the subpoena. The motion shall contain a brief statement of the reasons for the requested action. The Director or the hearing officer shall rule on the motion prior to the time for compliance specified in the subpoena.

**D.** Upon application to superior court by a party or the Director, subpoenas issued by the Director or the hearing officer shall be enforced in the manner provided by law for the enforcement of subpoenas in a civil action.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-219. Hearings**

**A.** The hearing officer shall:
1. Conduct the hearing in an impartial, orderly and informal manner without adhering to the rules of evidence in judicial proceedings;
2. Administer oaths to witnesses; and,
3. Exclude evidence that is irrelevant, immaterial or unduly repetitious.
4. Admit an oversized exhibit or an exhibit that cannot be photocopied only if the party offering the exhibit in evidence provides a duplicate of the exhibit. An oversized exhibit is an exhibit that is larger that 8 ½ inches by 11 inches.

**B.** The hearing officer may:
1. Exclude a witness from the hearing so the witness cannot hear the testimony of other witnesses;
2. Exclude a person from the hearing who is disruptive to the proceedings;
3. Take judicial notice, in the manner provided in A.R.S. § 41-1010(A)(3), of judicially cognizable facts, generally recognized technical or scientific facts within the agency's specialized knowledge or any matter in the public records of the Department;
4. Permit the filing of post-hearing legal memoranda; and,
5. Issue any orders necessary for the impartial, orderly and informal conduct of the hearing.

**C.** The parties and the Department shall have an opportunity to present evidence and argument on all issues. The hearing officer, the Department and any party may question witnesses.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R14-15-220. Recording and transcription of hearings**
Unless otherwise provided by law, the proceedings at hearings shall be recorded manually or electronically. The cost of the reporter, if any, and the transcript shall be paid by the person requesting the reporter or the transcript, unless assessment of the cost is waived by the Director.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R14-15-221. Decision of the Director after a hearing**
The decision of the Director after a hearing in a contested matter shall be signed by the Director and shall state separately the findings of fact, the conclusions of law and the order. The decision may

incorporate by reference, with or without modifications, any recommendations of the hearing officer.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-222. Request for rehearing or review of a decision where a hearing has been held**

**A.** This rule applies to requests for rehearing or review of a decision where a hearing has been held. Rule R12-15-208 applies to requests for review of or a hearing on a decision where a hearing has not been held.

**B.** When the Director issues a decision after holding a hearing, a party may request a rehearing or review of the decision pursuant to this rule.

**C.** Unless otherwise ordered by the Director, a request for rehearing or review shall be filed within 15 days after receipt of the decision. A party may file a response to such a request within 15 days after service of the request. No other pleadings shall be permitted unless specifically authorized by the Director.

**D.** A request for rehearing or review shall be in writing, shall clearly identify the decision at issue and shall be based upon one or more of the following grounds materially affecting the rights of a party.

1. Irregularity in the hearing proceedings or Department investigation, or any order, bias, prejudice or abuse of discretion by the hearing officer whereby the party filing the claim or error was deprived of a fair hearing;
2. Misconduct by the hearing officer or another party to the hearing;
3. Accident or surprise which could not have been prevented by ordinary prudence;
4. Material evidence, newly discovered, which with reason able diligence could not have been discovered and produced at the hearing;
5. Excessive or insufficient sanctions or penalties imposed or recommended;
6. Error in the admission or rejection of evidence or errors of law occurring at the hearing or during the action; or,
7. That the decision, penalty or sanction is not justified by the evidence or is contrary to law.

**E.** Each request for rehearing or review shall:

1. Specify the ground or grounds in subsection (D) of this rule upon which it is based;
2. Set forth specific facts or law in support of the claim; and,
3. Specify the particular relief sought by the request, such as a different decision, sanction or penalty, a new hearing or other relief.

**F.** A request for rehearing or review may seek multiple forms of relief or relief in the alternative.

**G.** An order granting rehearing or review shall specify the grounds on which the rehearing or review is granted. The grounds may include issues not raised in the request for rehearing or review. The rehearing or review shall cover only the specified grounds.

**H.** The Director, within the time for filing a request for rehearing or review prescribed by subsection (C) of this rule, may order a rehearing or review on his own initiative.

**I.** If a party does not request rehearing or review within the time period prescribed by subsection (C) of this rule, the party has waived the right to rehearing or review. If no party requests rehearing or review with the prescribed period and the Director does not on his own initiative order a rehearing or review with the prescribed period, the decision after hearing is the final decision of the Director.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-223. Final decision**

A final decision is any decision that terminates a proceeding before the Director. A decision is final only after one of the following occurs;

1. The Director issues a decision without holding a hearing, and no person files a timely request pursuant to R12-15-208 for review of or a hearing on the decision;
2. The Director issues a decision without holding a hearing, a person files a timely request pursuant to R12-15-208 for review of or a hearing on the decision and the Director denies the request;
3. The Director issues a decision without holding a hearing, a person files a timely request pursuant to R12-15-208 for review of the decision, the Director grants the request and the Director renders the decision on review;
4. The Director issues a decision after holding a hearing and no party files a timely request pursuant to R12-15-222 for rehearing or review;
5. The Director issues a decision after holding a hearing, a party files a timely request pursuant to R12-15-222 for rehearing or review and the Director denies the request;
6. The Director issues a decision after holding a hearing, a party files a timely request pursuant to R12-15-222 for review of the decision, the Director grants the request and the Director renders the decision on review; or,
7. The Director issues a decision after holding a hearing, a party files a timely request pursuant to R12-15-222 for rehearing, the Director grants the request and the Director renders the decision on rehearing.

**Historical Note**
Adopted effective June 13, 1984 (Supp. 84-3).

**R12-15-224. Ex parte communications**

**A.** During the course of a contested matter, a party shall not make an ex parte communication or knowingly cause an ex parte communication to be made to the Director, a hearing officer, or other Department employee or consultant who is or may reasonably be expected to be involved in the decision-making process of the contested matter.

**B.** During the course of a contested matter, the Department personnel listed in subsection (A) shall not make an ex parte communication or knowingly cause an ex parte communication to be made to a party or a person who will be materially and directly affected by the outcome of the contested matter.

**C.** Any of the Department personnel listed in subsection (A) of this rule who receives a written communication prohibited by this rule shall file a copy of the communication in the public docket and serve a copy on the Director or the hearing officer, the Chief Counsel and all parties to the contested matter. Any of the Department personnel listed in subsection (A) of this rule who receives an oral communication prohibited by this rule shall file a summary of the communication in the public docket and serve a copy on the Director or the hearing officer, the Chief Counsel and all parties to the contested matter.

**D.** Upon receipt of an ex parte communication or a copy or summary of an ex parte communication made or knowingly caused to be made by a party in violation of this rule, the Director or the hearing officer, to the extent consistent with the interests of justice and the policy of the underlying states and rules, may require the party to show cause why his claim or interest in the contested matter should not be dismissed, denied or disregarded on account of such violation.

**E.** For purposes of this rule, "ex parte communication" means any written or oral communication relating to the merits of a contested matter, except:

1. Communications made in the course of official proceedings in the contested matter;
2. Communications made in writing, if a copy of the communication is promptly served on the Director or the hearing officer, the Chief Counsel and all parties to the contested matter;
3. Oral communications made after adequate notice to all parties and the Chief Counsel;
4. Communications relating solely to procedural matters; and
5. As otherwise authorized by law.

**Historical Note**
Adopted effective June, 1984 (Supp. 84-3).

## ARTICLE 3. STOCKPOND AND OTHER SURFACE WATER RULES

**R12-15-301. Issuance of certificates**

**A.** Certificates of water rights authorized by Title 45, Chapter 1, Article 10, Arizona Revised Statutes, shall be issued:
1. To the United States for stockponds located on lands of the National Forest system and, except as provided by paragraph (3) of this subsection, for stockponds located on lands administered by the Bureau of Land Management, on behalf of the United States and present and future permittees, lessees or allottees.
2. For stockponds located on state trust lands:
   a. To the grazing lessee, in any instance where the state lease provides for the issuance of the certificate to the lessee and the stockpond is an authorized improvement. A certificate issued to a state grazing lessee shall state that the water right certificate is issued to the lessee by and for the state of Arizona.
   b. To the state of Arizona in all other instances.
3. To Bureau of Land Management lessees or permittees for stockponds constructed pursuant to an authorized range improvement permit on lands administered by the Bureau of Land Management. A certificate issued to a Bureau of Land Management lessee or permittee under this paragraph shall state that the water right certificate is issued to the lessee or permittee by and for the Bureau of Land Management.

**B.** All water rights approved pursuant to Title 45, Chapter 1, Article 5, Arizona Revised Statutes, for stockponds as defined by § 45-271 built on lands of the National Forest system or on lands administered by the Bureau of Land Management shall be issued to the United States on behalf of the United States and present and future permittees, lessees or allottees.

**C.** The water in any stockpond for which a certificate is issued under this rule shall be used solely and exclusively for watering livestock or wildlife.

**Historical Note**
Adopted effective October 8, 1982 (Supp. 82-5).
Amended effective April 3, 1987 (Supp. 87-2). Amended effective May 7, 1990 (Supp. 90-2).

**R12-15-302. Obligations of owner; change of ownership**

**A.** The United States or the state of Arizona shall not restrict access in any manner to a stockpond registered under these rules without prior written notification to the lessee, permittee or allottee. The Director of the Department of Water Resources shall investigate and take appropriate action in any dispute between the legal owner of the stockpond as listed on the certificate and a rightful user of the stockpond concerning right of access to a stockpond registered under these rules.

**B.** The United States Forest Service, the Bureau of Land Management and the State Land Department shall notify the Director in writing of any change of permittee, lessee, allottee, or other rightful user within 30 days of the change. All certificate holders shall notify the Director in writing within 30 days of the transfer of a certificate to a new owner.

**Historical Note**
Adopted effective October 8, 1982 (Supp. 82-5).
Amended effective May 7, 1990 (Supp. 90-2).

**R12-15-303. Multiple applications for water rights**

**A.** If two or more applications are filed with the Director pursuant to A.R.S. §§ 45-152 or 45-273 or both by or for the same applicant and for a right to use the same water, the Director shall consolidate the applications. If the applicant is otherwise entitled to both a permit to appropriate and a certificate of stockpond water right, the Director shall issue to the applicant either the permit to appropriate or the certificate of stockpond water right, whichever would give the applicant the higher priority.

**B.** If one or more applications are filed with the Director pursuant to A.R.S. §§ 45-152 or 45-273 or both by or for the same applicant and for a right to use the same water for which the applicant holds a permit to appropriate, a certificate of water right or a certificate of stockpond water right, the Director shall deny the application or applications unless the applicant relinquishes every permit to appropriate, certificate of water right and certificate of stockpond water right which the applicant holds for that same water. The applicant may relinquish every permit to appropriate, certificate of water right and certificate of stockpond water right on the condition that the Director issues a permit to appropriate or certificate of stockpond water right to the applicant for the same water. In that case, the relinquishment shall be effective when the Director issues the permit to appropriate or certificate of stockpond water right.

**C.** For purposes of this rule, "same water" means the same quantity of water from the same source for use at the same place for the same purpose. Water for which a right is applied or held pursuant to an application or permit to appropriate, certificate of water right or certificate of stockpond water right may be the same water in whole or in part as water for which a right is applied or held pursuant to a separate application or permit to appropriate, certificate of water right or certificate of stockpond water right.

**Historical Note**
Adopted effective April 3, 1987 (Supp. 87-2). Section R12-15-310 renumbered to R12-15-303 and amended effective May 7, 1990 (Supp. 90-2).

**R12-15-304. Reserved**

**R12-15-305. Reserved**

**R12-15-306. Reserved**

**R12-15-307. Reserved**

**R12-15-308. Reserved**

**R12-15-309. Reserved**

**R12-15-310. Renumbered**

**Historical Note**
Adopted effective April 3, 1987 (Supp. 87-2). Section R12-15-310 renumbered to R12-15-303 effective May 7, 1990 (Supp. 90-2)

## ARTICLE 4. LICENSING TIME-FRAMES

**R12-15-401. Licensing Time-frames**

The following time-frames apply to licenses issued by the Department. In this Article, "license" has the meaning prescribed in A.R.S. § 41-1001(11). The licensing time-frames consist of an administrative completeness review time-frame, a substantive review time-frame, and an overall time-frame.

1. Within the administrative completeness review time-frames set forth in subsection (7), the Department shall notify the applicant in writing whether the application is complete or incomplete. If the application is incomplete, the notice shall specify what information or component is required to make the application complete.
2. An applicant with an incomplete application shall supply the missing information within 60 days from the date of the notice, or within such further time as the Director may specify, unless another time limit is specified by statute or applicable rule. If the applicant fails to complete the application within the specified time period, the Department may deem the application withdrawn and close the file. Closing a file under this provision does not preclude the applicant from filing a new application.
3. Within the overall time-frames set forth in subsection (7), unless extended by mutual agreement under A.R.S. § 41-1075, the Department shall notify the applicant in writing that the application is granted or denied. If the application is denied, the Department shall provide written justification for the denial and a written explanation of the applicant's right to a hearing or the applicant's right to appeal.
4. In computing any period of time prescribed by this rule, the day of the filing, notice or event from which the designated period of time begins to run shall not be included. The last day of the computed period shall be included, unless it is a Saturday, Sunday, or a legal holiday, in which event the period runs until the end of the next day which is not a Saturday, Sunday, or legal holiday. When the prescribed administrative completeness review time-frame or substantive review time-frame is less than 11 days, intermediate Saturdays, Sundays and legal holidays shall be excluded from the computation. The overall time-frame is the sum of the administrative completeness review time-frame and the substantive review time-frame calculated as prescribed by this Section.
5. Except as otherwise noted, the licensing time-frames do not include time for hearings. Time-frames in cases where a hearing is held are increased by 120 days.
6. The licensing time-frame rules are effective after December 31, 1998, as prescribed by A.R.S. § 41-1073(A), and apply to all applications filed after that date.
7. The licensing time-frames are set forth in Table A.

**Historical Note**

Adopted effective December 31, 1998; filed with the Office of the Secretary of State July 28, 1998 (Supp. 98-3).

**Table A. Licensing Time-frames**

| No. | License | Legal Authority | Completeness Review (Days)* | Substantive Review (Days)* | Overall Time-frame (Days)* |
|---|---|---|---|---|---|
| 1 | Filling a body of water with poor quality water | A.R.S. § 45-132(C) | 30 | 60 | 90 |
| 2 | Interim water use in body of water | A.R.S. § 45-133 | 30 | 60 | 90 |
| 3 | Temporary emergency permit for use of surface water or groundwater in body of water | A.R.S. § 45-134 | 10 | 20 | 30 |
| 4 | Permit to appropriate water (non-instream flow) | A.R.S. §§ 45-151 and 45-153 | 30 | 420 | 450 |
| 5 | Permit to appropriate water (instream flow) | A.R.S. §§ 45-151 and 45-153 | 50 | 530 | 580 |
| 6 | Change in use of water | A.R.S. § 45-156(B) | 30 | 375 | 405 |
| 7 | Exception to limitation on time of completion of construction | A.R.S. § 45-160 | 5 | 15 | 20 |
| 8 | Primary reservoir permit | A.R.S. § 45-161 | 30 | 420 | 450 |
| 9 | Secondary reservoir permit | A.R.S. § 45-161 | 30 | 420 | 450 |
| 10 | Certificate of water right (non-instream flow) | A.R.S. § 45-162 | 20 | 100 | 120 |
| 11 | Certificate of water right (instream flow) | A.R.S. § 45-162 | 20 | 190 | 210 |
| 12 | Reissuance of permit or certificate held by the United States or State of Arizona | A.R.S. § 45-164(C) | 10 | 80 | 90 |

| No. | License | Legal Authority | Completeness Review (Days)* | Substantive Review (Days)* | Overall Time-frame (Days)* |
|---|---|---|---|---|---|
| 13 | Severance and transfer | A.R.S. § 45-172 (excluding 172.6) | 30 | 390 | 420 |
| 14 | Stockpond certificate | A.R.S. § 45-273 | 30 | 190 | 220 |
| 15 | Transporting water from this state ** | A.R.S. § 45-292 | 120 | 300 | 420 |
| 16 | Waiver of water conserving plumbing fixture requirement | A.R.S. § 45-315 | 10 | 3 | 13 |
| 17 | Irrigated acreage in an irrigation non-expansion area | A.R.S. § 45-437 | 30 | 90 | 120 |
| 18 | Substitution of acres in an irrigation non-expansion area/ flood damage | A.R.S. § 45-437.02 | 30 | 90 | 120 |
| 19 | Substitution of acres in an irrigation non-expansion area/ impediments to efficient irrigation | A.R.S. § 45-437.03 | 30 | 90 | 120 |
| 20 | Reversal of substitution of acres irrigated with Central Arizona Project water | A.R.S. § 45-452(G) | 30 | 90 | 120 |
| 21 | Type 1 non-irrigation grandfathered right associated with irrigation land retired 1965-1980 | A.R.S. §§ 45-463, 45-476.01, and 45-476 | 30 | 90 | 120 |
| 22 | Type 2 non-irrigation grandfathered right | A.R.S. §§ 45-464, 45-476.01, and 45-476 | 30 | 90 | 120 |
| 23 | Irrigation grandfathered right | A.R.S. §§ 45-465, 45-476.01, and 45-476 | 30 | 90 | 120 |
| 24 | Substitution of acres in an active management area/flood damaged acres | A.R.S. § 45-465.01 | 30 | 90 | 120 |
| 25 | Substitution of acres in an active management area/ impediments to efficient irrigation | A.R.S. § 45-465.02 | 30 | 90 | 120 |
| 26 | Type 1 non-irrigation right retired after 6/12/80 | A.R.S. § 45-469 | 30 | 90 | 120 |
| 27 | Restoration of retired irrigation grandfathered right | A.R.S. § 45-469(O) | 30 | 90 | 120 |
| 28 | Revised certificate for new or additional points of withdrawal for a Type 2 right | A.R.S. § 45-471(C) | 45 | 135 | 180 |
| 29 | Conveyance of irrigation grandfathered right for electrical energy generation | A.R.S. § 45-472(B)(2) | 30 | 90 | 120 |
| 30 | Conveyance of irrigation grandfathered right for non-irrigation use within service area | A.R.S. § 45-472(C) | 30 | 90 | 120 |

| No. | License | Legal Authority | Completeness Review (Days)* | Substantive Review (Days)* | Overall Time-frame (Days)* |
|---|---|---|---|---|---|
| 31 | Contract to supply groundwater | A.R.S. § 45-492(C) | 15 | 90 | 105 |
| 32 | Extension of service area to provide disproportionally large amount of water to large user | A.R.S. § 45-493(A)(2) | 15 | 90 | 105 |
| 33 | Addition/exclusion of acres by irrigation district | A.R.S. § 45-494.01(A) | 30 | 90 | 120 |
| 34 | Delivery of groundwater from an irrigation district to a general industrial use permit holder | A.R.S. § 45-497(B) | 15 | 60 | 75 |
| 35 | Issuance/renewal/modification of dewatering permit | A.R.S. §§ 45-513 and 45-527 | 30 | 70 | 100 |
| 36 | Issuance/renewal/modification of mineral extraction and metallurgical processing permit | A.R.S. §§ 45-514 and 45-527 | 30 | 70 | 100 |
| 37 | Issuance/renewal/modification of general industrial use permit | A.R.S. §§ 45-515, 45-521, 45-522, 45-523, 45-524, and 45-527 | 30 | 70 | 100 |
| 38 | Issuance/renewal/modification of poor quality groundwater withdrawal permit | A.R.S. §§ 45-516 and 45-527 | 30 | 70 | 100 |
| 39 | Issuance/renewal/modification of temporary permit for electrical energy generation | A.R.S. §§ 45-517 and 45-527 | 30 | 70 | 100 |
| 40 | Issuance/extension/ modification of temporary dewatering permit | A.R.S. §§ 45-518 and 45-527 | 30 | 70 | 100 |
| 41 | Emergency temporary dewatering permit | A.R.S. § 45-518(D) | 3 | 7 | 10 |
| 42 | Issuance/renewal/modification of drainage water withdrawal permit | A.R.S. §§ 45-519 and 45-527 | 30 | 70 | 100 |
| 43 | Issuance/renewal/modification of hydrologic testing permit | A.R.S. §§ 45-519.01, 45-521, 45-522, 45-524, and 45-527 | 30 | 30 | 60 |
| 44 | Change of location of use | A.R.S. §§ 45-520(A), 45-521, and 45-527 | 30 | 30 | 60 |
| 45 | Conveyance of a groundwater withdrawal permit | A.R.S. § 45-520(B) | 30 | 30 | 60 |
| 46 | Transportation of groundwater withdrawn in McMullen Valley Basin to an active management area | A.R.S. § 45-552(B) | 45 | 105 | 150 |

| No. | License | Legal Authority | Completeness Review (Days)* | Substantive Review (Days)* | Overall Time-frame (Days)* |
|---|---|---|---|---|---|
| 47 | Transportation of groundwater withdrawn in Harquahala irrigation non-expansion area to an initial active management area | A.R.S. § 45-554(B) | 45 | 105 | 150 |
| 48 | Transportation of groundwater withdrawn in Big Chino subbasin to an initial active management area | A.R.S. § 45-555(B) | 45 | 105 | 150 |
| 49 | Well spacing requirements for withdrawing groundwater for transportation to an active management area | A.R.S. § 45-559 | 45 | 105 | 150 |
| 50 | Groundwater replenishment district's preliminary or long-term replenishment plan ** | A.R.S. § 45-576.03 | As prescribed by A.R.S. § 45-576.03(A) | As prescribed by A.R.S. § 45-576.03 (B), (C), (D), and (E) | As prescribed by A.R.S. § 45-576.03 |
| 51 | Conservation district or water district long-term replenishment plan ** | A.R.S. §§ 45-576.03, 45-576.02(C), and 45-576.02(E) | As prescribed by A.R.S. § 45-576.03(I) | As prescribed by A.R.S. § 45-576.03(J), (K), (L), and (M) | As prescribed by A.R.S. § 45-576.03 |
| 52 | Notice of intent to abandon a well | A.R.S. § 45-594 and A.A.C. R12-15-816 | 15 | 15 | 30 |
| 53 | Well construction request for variance | A.R.S. §§ 45-594, 45-596(D), and A.A.C. R12-15-820 | 15 | 35 | 50 |
| 54 | Well driller license | A.R.S. § 45-595(C) | 25 | 105 | 130 |
| 55 | Single well license | A.R.S. § 45-595(D) | 25 | 105 | 130 |
| 56 | Renewal or reactivation of well drilling license | A.R.S. § 45-595(C) A.A.C. R12-15-806 | 25 | 15 | 40 |
| 57 | Notice of intent to drill | A.R.S. § 45-596, and A.A.C. R12-15-810 | 15 | 0 | 15 |
| 58 | Well construction permit | A.R.S. § 45-599 | 30 | 60 | 90 |
| 59 | Alternative water measuring devices | A.R.S. § 45-604 and A.A.C. R12-15-909 | 15 | 60 | 75 |
| 60 | Underground storage facility permit | A.R.S. §§ 45-811.01 and 45-871.01 | As prescribed by A.R.S. § 45-871.01(B) | As prescribed by A.R.S. § 45-871.01(D), (G), and (H) | As prescribed by A.R.S. § 45-871.01 |
| 61 | Groundwater savings facility permit | A.R.S. §§ 45-812.01 and 45-871.01 | As prescribed by A.R.S. § 45-871.01(B) | As prescribed by A.R.S. § 45-871.01(D), (G), and (H) | As prescribed by A.R.S. § 45-871.01 |
| 62 | Storage facility permit renewal/conveyance/ modification | A.R.S. §§ 45-814.01 and 45-871.01 | As prescribed by A.R.S. § 45-871.01(B) | As prescribed by A.R.S. § 45-871.01(D), (G), and (H) | As prescribed by A.R.S. § 45-871.01 |
| 63 | Water storage permit modification/conveyance | A.R.S. §§ 45-831.01 and 45-871.01 | As prescribed by A.R.S. §§ 45-831.01(G) and 45-871.01(B) and (E) | As prescribed by A.R.S. §§ 45-831.01(G) and 45-871.01(D), (E), (G), and (H) | As prescribed by A.R.S. §§ 45-831.01(G) and 45-871.01 |

| No. | License | Legal Authority | Completeness Review (Days)* | Substantive Review (Days)* | Overall Time-frame (Days)* |
|---|---|---|---|---|---|
| 64 | Recovery well permit | A.R.S. §§ 45-834.01 and 45-871.01 | As prescribed by A.R.S. § 45-871.01(B) | As prescribed by A.R.S. § 45-871.01(F), (G), and (H) | As prescribed by A.R.S. § 45-871.01 |
| 65 | Emergency temporary recovery well permit | A.R.S. § 45-834.01(D) | 5 | 10 | 15 |
| 66 | Issuance/renewal/modification of water exchange permit | A.R.S. §§ 45-1041, 45-1042, and 45-1045 | As prescribed by A.R.S. § 45-1042(A) | As prescribed by A.R.S. § 45-1042(B), (C), and (D) | As prescribed by A.R.S. § 45-1042 |
| 67 | Modification of previously enrolled or permitted water exchange/non-Colorado River | A.R.S. § 45-1041(B) | 60 | 90 | 150 |
| 68 | Construction, enlargement, repair, alteration, or removal of a dam | A.R.S. §§ 45-1203, 45-1206, and 45-1207 | 120 | 60 | 180 |
| 69 | Weather modification license | A.R.S. § 45-1601 | 15 | 60 | 75 |
| 70 | Certificate of Assured Water Supply | A.A.C. R12-15-702, A.R.S. §§ 45-576 and 45-578 | 150 | 60 | 210 |
| 71 | Designation or Modification of Designation of Assured Water Supply | A.A.C. R12-15-702 and R12-15-714; A.R.S. § 45-576 | 150 | 60 | 210 |
| 72 | Analysis of Assured Water Supply/unplatted development plan | A.A.C. R12-15-712, A.R.S. § 45-576(H) | 150 | 30 | 180 |
| 73 | Assured Water Supply for State lands | A.A.C. R12-15-713, A.R.S. § 37-334(F) | 30 | 60 | 90 |
| 74 | Water adequacy report | A.A.C. R12-15-716, A.R.S. § 45-108 | 60 | 60 | 120 |
| 75 | Designation or Modification of Designation of Adequate Water Supply | A.A.C. R12-15-716, A.A.C. R12-15-725 A.R.S. § 45-108 | 150 | 60 | 210 |
| 76 | Analysis of water adequacy/ unplatted | A.R.S. § 45-108 A.A.C. R12-15-723 | 60 | 60 | 120 |
| 77 | Adequate Water Supply for State lands | A.R.S. § 45-108 A.A.C. R12-15-724 | 30 | 60 | 90 |

* The computation of days is prescribed by subsection (4).
** Hearing is required.

**Historical Note**
Adopted effective December 31, 1998; filed with the Office of the Secretary of State July 28, 1998 (Supp. 98-3).

**ARTICLE 5. RESERVED**

**ARTICLE 6. RESERVED**

**ARTICLE 7. ASSURED AND ADEQUATE WATER SUPPLY**

**R12-15-701. Definitions - Assured and Adequate Water Supply Programs**
In addition to the definitions set forth in A.R.S. §§ 32-2101, 45-101, 45-402, 45-561, 45-576, 45-651, 45-802, 45-851, and 45-1901, the following words and phrases in this Article shall have the following meanings, unless the context otherwise requires:

1. "AAWS applicant" means an applicant for an analysis of assured water supply, or the applicant's proposed municipal provider.
2. "Active management area water district" means a district formed pursuant to A.R.S. Title 48, Chapter 28.
3. "Analysis of assured water supply" means an instrument prepared by the director in accordance with R12-15-712.
4. "Build-out" means a condition in which all water delivery mains are in place and active water service connections exist for all lots.
5. "Central Arizona Project water" means:
   a. All water from the Colorado River or from the Central Arizona Project works authorized in P.L. 90-

537, excluding enlarged Roosevelt reservoir, which is made available pursuant to a subcontract with a multi-county water conservation district.

b. Any additional water not included in subsection (5)(a) that is delivered by the United States Secretary of the Interior pursuant to an Indian water rights settlement through the Central Arizona Project.

6. "Certificate applicant" means a person who is applying for a certificate of assured water supply, or the applicant's proposed municipal provider.
7. "Certificate of assured water supply" means a permit issued by the director for a development, other than a master-planned community, after the director determines that an assured water supply exists for the development pursuant to A.R.S. § 45-576 and this Article.
8. "Certificate of convenience and necessity" means a certificate required by the Arizona Corporation Commission pursuant to A.R.S. § 40-281 which allows a private water company to serve water to customers within its certificated area.
9. "Colorado River water" means any surface water diverted from the main stem of the Colorado River, except Central Arizona Project water, which is obtained through a contract with the United States Secretary of the Interior.
10. "Committed demand" means the estimated demand of all recorded lots within the boundaries of the area being evaluated for physical availability which are not yet served water.
11. "County water augmentation authority" means an authority formed pursuant to A.R.S. Title 45, Chapter 11, Arizona Revised Statutes.
12. "Date of application" means the date the director receives an application for a certificate of assured water supply, designation of assured water supply, or an analysis of assured water supply.
13. "Declaration date" means the date the director enters a final decision and order declaring that the Prescott Active Management Area is no longer at safe-yield.
14. "Declaration year" means the calendar year in which the director enters a final decision and order declaring that the Prescott Active Management Area is no longer at safe-yield.
15. "Deemed provider" means a city or town designated under A.R.S. § 45-576(E) which has received an allocation from the United States Secretary of the Interior for Central Arizona Project water.
16. "Depth-to-static water level" means the level at which water stands in a well when no water is withdrawn by pumping or by free flow.
17. "Designated provider" means within an active management area, a municipal provider which has obtained a designation of assured water supply or a city or town which is a deemed provider.
18. "Designation of AWS applicant" means a person applying for a designation of assured water supply.
19. "Designation of assured water supply" means a decision and order issued by the director designating a municipal provider as having an assured water supply pursuant to A.R.S. § 45-576 and this Article.
20. "Development" means either a subdivision or an unplatted development plan.
21. "Drought response plan" means a plan describing a variety of conservation and augmentation measures, especially the use of backup water supplies, which a municipal provider will utilize in operating its water supply system in times of a water supply shortage. The plan may include the following:
    a. An identification of priority water uses consistent with appropriate public policies.
    b. A description of sources of emergency water supplies.
    c. An analysis of the potential use of water pressure reduction.
    d. Plans for public education and voluntary water use reduction.
    e. Plans for water use bans, restrictions and rationing.
    f. Plans for water pricing and penalties for excess water use.
    g. Plans for coordination with other cities, towns, and private water companies.
22. "Drought volume" means 80% of the volume of a surface water supply determined by the director under R12-15-703 to be physically available on an annual basis to a holder of a certificate of assured water supply or a designation of assured water supply.
23. "Dry-lot development" means a development without a central system for the distribution of water.
24. "Existing municipal provider" means a municipal provider that was in operation and serving water for non-irrigation use on or before January 1, 1990.
25. "Extinguish" means to cause a grandfathered groundwater right to cease to exist through a process established by the director pursuant to R12-15-705.
26. "Firm yield" means the minimum annual diversion for the period of record which may include runoff and releases from storage reservoirs.
27. "Groundwater replenishment district" means a district established pursuant to A.R.S. Title 48, Chapter 27.
28. "Lost and unaccounted for water" means water which is defined as lost and unaccounted for water in the management plans for the second management period, 1990-2000.
29. "Management plan" means a water management plan adopted by the director pursuant to A.R.S. §§ 45-561 et seq.
30. "Median flow" means the flow which is represented by the middle value of a set of flow data which are ranked in order of magnitude.
31. "Multi-county water conservation district" means a district established pursuant to A.R.S. Title 48, Chapter 22.
32. "Municipal provider" means a city, town, or private water company.
33. "Multifamily housing unit" means a mobile home in a mobile home park and any permanent housing unit having one or more common walls with another housing unit located in a multifamily residential structure and includes a unit in a duplex, triplex, fourplex, condominium development, townhome development, or apartment complex.
34. "New municipal provider" means a municipal provider that began serving water for non-irrigation use after January 1, 1990.
35. "New large cooling user" means a user which is defined as a new large cooling user in the management plans for the second management period, 1990-2000.
36. "Non-residential use" means a water use which is defined as a non-residential use in the management plans for the second management period, 1990-2000.
37. "Owner" means:
    a. With respect to a certificate applicant, a person who holds a sufficient ownership interest in the land described in the certificate application to allow for

the sale or lease of the property immediately upon approval of the certificate and plat, and the issuance of the public report;

b. With respect to a designation applicant, the person who will be providing water service pursuant to the designation.

38. "Perennial" means a stream that flows continuously.
39. "Persons per household" means a measure obtained by dividing the number of persons residing in housing units by the number of housing units.
40. "Physical availability demonstration" means a process whereby a municipal provider not presently applying for a designation of assured water supply or a developer not presently applying for a certificate of assured water supply can submit evidence to the director indicating the physical availability as determined under R12-15-703(B) and quality of water sources under R12-15-704 identified by the provider or developer.
41. "Plat" means a preliminary or final map of lots and land uses which requires evidence of an assured water supply prior to approval by a city, town, or county.
42. "Preliminary certificate of assured water supply" means an instrument issued by the director upon a finding that an applicant for a certificate of assured water supply has satisfied all assured water supply requirements in this Article except for those established in R12-15-707.
43. "Service area population" means the population defined as service area population in the management plans for the second management period, 1990-2000.
44. "Single family housing unit" means a detached dwelling, including mobile homes not in mobile home parks.
45. "Stored credits" means incidental recharge credits, extinguishment credits, and groundwater storage project credits which the director has included in the physical availability account established under R12-15-703.
46. "Superfund site" means the site of a remedial action undertaken pursuant to the Comprehensive Response, Compensation, and Liability Act of 1980, as amended (P.L. 96-510; 94 Stat. 2767; 42 U.S.C. §§ 9601-9657).
47. "Surface water" means any surface water, including Central Arizona Project water and Colorado River water.
48. "Turf-related Facility" means a facility which is defined as a turf-related facility in the management plans for the second management period, 1990-2000.
49. "Unplatted development plan" means an unplatted land-use plan for development which, if platted, would be subject to the requirements of this Article.
50. "Water supply plan" means a water supply plan containing all of the following information:
    a. A description of facilities and water-using features associated with the residential and non-residential portion of the development.
    b. A description of the applicant's current and proposed water conservation programs.
    c. A list of current and proposed conservation-oriented ordinances adopted or under consideration by the local governing body.
    d. A description of conservation practices, rates, fees, restrictions, policies, and devices to be utilized within the development, or utilized within the municipal provider's service area to meet the applicant's or the applicant's municipal provider's conservation requirements established in the management plan in effect on the date of application.
    e. Plans for augmentation of the water supplies, including the development or acquisition of renewable supplies.
51. "Water Quality Assurance Revolving Fund site" means a site of a remedial action undertaken pursuant to A.R.S. Title 49, Chapter 2, Article 5.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-702. Assured Water Supply Requirement - Application for Certificate of Assured Water Supply; Application for Designation of Assured Water Supply; Application for Analysis of Assured Water Supply**

**A.** A person applying for a certificate of assured water supply, a designation of assured water supply, or an analysis of assured water supply shall provide the following information on a form prescribed by the director:

1. For an application for a certificate of assured water supply or an analysis of assured water supply:
    a. Name, telephone number, and address of the certificate applicant or AAWS applicant. The applicant must be the owner of the subdivision for which the application is filed. If the holder of an ownership interest in the proposed development is a person other than an individual, such as a corporation, partnership, or trust, a statement naming the type of legal entity and listing the interest and extent of such interest of each principal in the entity. For purposes of this subsection (a), "principal" means any person or entity having a ten percent or more financial interest in the development or, if the legal entity is a trust, each beneficiary of the trust holding a ten percent or more beneficial interest in the development.
    b. Name of the proposed development.
    c. Name, address, and telephone number of the municipal provider proposed to serve the development and the applicant's technical consultant.
    d. Number of lots and housing units projected to be located within the proposed development.
    e. A copy of the proposed development's plat which will be submitted to the city, town, or county for approval or unplatted development plan and a map of the proposed development which indicates the location of the proposed water distribution system and treatment works and the proposed development's geographical coordinates.
    f. Total acreage of and size of lots in the proposed development.
    g. The anticipated schedule for the proposed development to reach build-out and an annual projection of water demand until build-out.
    h. Proposed water uses of the proposed development.
    i. Projected annual water demand per lot or housing unit within the proposed development at build-out for the following categories, and a schedule for completion of facilities associated with each category:
        i. Single family housing units;
        ii. Multifamily housing units;
        iii. Non-residential uses, excluding turf-related facilities and new large cooling users;
        iv. Turf-related facilities;
        v. New large cooling users; and
        vi. Other uses which impact the projected annual water demand.
    j. A water supply plan.

k. Information required to project annual lost and unaccounted for water associated with the proposed development.
l. A description of the landscaping to be planted in public rights-of-way associated with the proposed development.
m. Projected average number of persons per household for the proposed development for the following categories:
   i. Single family housing units,
   ii. Multifamily housing units.
n. Method of distributing water to the proposed development.
o. A study indicating that the certificate applicant's or AAWS applicant's proposed sources of water meet the requirements established in R12-15-703 and R12-15-704. If wells proposed to provide water to the development are located within one mile of a Water Quality Assurance Revolving Fund or Superfund site, or if the water supply does not currently satisfy state aquifer water quality standards, the study shall include:
   i. An identification of groundwater, if any, that does not meet state aquifer water quality standards within or adjacent to the wells proposed to provide water to the development.
   ii. An analysis of the possible migration of groundwater that does not meet state aquifer water quality standards which may result from the proposed use.
p. A copy of a notice of intent to serve agreement entered into between the owner of the proposed development and a municipal provider which is proposed to serve the proposed development.
q. A copy of any agreement for the delivery of specific sources of water to the proposed development.
r. A copy of any water service agreement between the certificate applicant or the AAWS applicant and an active management area water district, or county water augmentation authority, or a subcontract with a multi-county water conservation district.
s. Evidence, consistent with the requirements established in R12-15-703, of any legal right to use the proposed sources of water for the proposed development.
t. If the municipal provider proposed to serve the proposed development is a private water company, evidence of the proposed municipal provider's certificate of convenience and necessity as approved by the Arizona Corporation Commission.
u. Evidence of financial capability to construct the delivery system and any necessary treatment works and storage facilities for the proposed development consistent with the requirements of R12-15-707.
v. A drought response plan, if required under R12-15-703.
w. If the applicant qualifies as a member land of a multi-county water conservation district as provided in A.R.S. Title 48, Chapter 22, or a water district member land of an active management area water district as provided in A.R.S. Title 48, Chapter 28, Arizona Revised Statutes, evidence of such membership.

2. For an application for a designation of assured water supply, as applicable:
a. Name of the designation of AWS applicant. The AWS applicant must be the owner of the municipal provider. If the holder of any ownership interest in the applicant is a person other than an individual, city, or town such as a corporation, partnership, or trust, a statement naming the type of legal entity and listing the interest and the extent of such interest of each principal in the entity.
b. Address and telephone number of the designation of AWS applicant and contact person.
c. A copy of the designation of AWS applicant's current service area map which includes the designation of AWS applicant's current and proposed distribution system, treatment works, and storage facilities to be analyzed by the director in determining continuous availability under R12-15-703(C), and the designation of AWS applicant's geographical coordinates.
d. The designation of AWS applicant's annual population projection for each calendar year for 20 calendar years from the date of application.
e. An analysis of current and committed demands for the designation of AWS applicant.
f. Projected water demands of the residential and nonresidential use categories specified by the director which are necessary to make the determination required in R12-15-706.
g. A water supply plan.
h. Information required to project annual lost and unaccounted for water associated with the activities of the designation of AWS applicant.
i. Projected average number of persons per household for housing units being served and proposed to be served by the designation of AWS applicant for the following categories:
   i. Single family housing units,
   ii. Multifamily housing units.
j. A study indicating that the designation of AWS applicant's proposed sources of water meet the requirements established in R12-15-703 and R12-15-704. If wells proposed to serve the designation of AWS applicant's service area are located within one mile of a Water Quality Assurance Revolving Fund or Superfund site, or if the water supply does not currently satisfy state aquifer water quality standards, the study shall include:
   i. An identification of groundwater, if any, that does not meet state aquifer water quality standards within or adjacent to the wells proposed to serve the service area.
   ii. An analysis of the possible migration of groundwater that does not meet state aquifer water quality standards which may result from the proposed use.
k. Evidence, consistent with the requirements established in R12-15-703, of the designation of AWS applicant's legal right to use the proposed sources of water.
l. A copy of any water service agreement between the applicant and an active management area water district or a county water augmentation authority, or a subcontract with a multi-county water conservation district.
m. If the designation of AWS applicant is a private water company, evidence of the applicant's certifi-

cate of convenience and necessity approved by the Arizona Corporation Commission.

n. Evidence of financial capability to construct the delivery system and any necessary treatment works and storage facilities for the designation of AWS applicant consistent with the requirements of R12-15-707.

o. A drought response plan, if required under R12-15-703.

p. If the applicant qualifies as a member service area of a multi-county water conservation district as provided in A.R.S. Title 48, Chapter 22, a district member of a groundwater replenishment district as provided in A.R.S. Title 48, Chapter 27, or a water district member service area of an active management area water district as provided in A.R.S. Title 48, Chapter 28, evidence of such membership.

3. Any other information prescribed by the director which is necessary to make a determination of whether an assured water supply exists for the applicant.

4. A sworn statement avowing that the information contained in the application is true and correct to the best knowledge of the certificate applicant, designation of AWS applicant, or AAWS applicant.

**B.** An application for a certificate of assured water supply, a designation of assured water supply, or an analysis of assured water supply shall be signed by:

1. The individual owner if the proposed development or private water company is owned by a sole proprietor; or

2. An authorized corporate officer, partner, or trustee if the proposed development or private water company is owned by a corporation, partnership, or trust. If the application is submitted on behalf of a corporation, a resolution enacted by the corporation which evidences that the person signing the application is so authorized by the corporation; or

3. A city or town manager or a person employed in an equivalent position if the applicant is a city or town. The application shall also include a resolution of the governing body of the city or town authorizing the city or town manager to sign the application.

**C.** A person applying for a physical availability demonstration shall submit evidence as prescribed in subsection (A) of this Section which is required by the director to determine physical availability under R12-15-703(B) and quality of the proposed source of water under R12-15-704. After analyzing this information, the director shall provide the applicant a written determination of the proposed source of water's physical availability and quality. The demonstration may be used by any person as evidence of the physical availability and quality of those water sources described in the demonstration.

**D.** A municipal provider, other than a deemed provider, which is designated as having an assured water supply as of the effective date of this Article shall file an application to continue its designation of assured water supply within 180 days after the effective date of this Article or the director shall revoke the municipal provider's designation of assured water supply. If the municipal provider files an application within 180 days after the effective date of this Article, and the director determines that the information is insufficient to determine whether an assured water supply exists, the municipal provider shall have 60 days from the date of notification that the application is incomplete to complete its application. If the municipal provider fails to complete its application within 60 days after receiving the notice, the director may revoke the municipal provider's designation of assured water supply.

**E.** If a municipal provider is a deemed provider as of the effective date of this Article, the municipal provider's designated status shall terminate on January 1, 1998, unless the municipal provider files an application to continue its designated status on or before January 1, 1998, and the director determines the application to be complete and correct, in which case the provider's original designation shall remain effective until the director determines whether to redesignate the provider. A deemed provider which successfully applies for redesignation under this Article shall not be subject to the requirements established in this Article until January 1, 1998.

**F.** If a designated provider's designated status terminates, the provider may apply to be designated anytime thereafter.

**G.** Subject to the provisions of subsection (H) of this Section, the priority date of an application for a certificate of assured water supply, designation of assured water supply, or analysis of assured water supply shall be the date that a complete and correct application is filed with the Director. In the case of two or more pending, conflicting applications for a certificate of assured water supply, designation of assured water supply, or analysis of assured water supply which the director determines to be complete and correct, priority shall be given to the application with the earliest priority date.

**H.** An application which the director determines to be complete and correct for a certificate of assured water supply for a development for which a certificate of assured water supply has previously been issued, or for which a plat was recorded prior to June 12, 1980, shall have priority among pending, conflicting applications according to the date on which the prior certificate of assured water supply was issued, or the date on which the prior plat had been recorded, provided that:

1. If the development has never been determined to have an assured water supply, the plat which is referenced in the application has not been substantially modified since the plat was recorded.

2. If the development has previously been issued a certificate of assured water supply, the plat referenced in the application has not been substantially modified since the certificate of assured water supply was issued and the certificate of assured water supply has not been revoked.

**I.** The owner of six or more lots which comprise a subset of a subdivision which has been platted prior to 1980 or for which a certificate has been issued is exempt from the requirement to obtain a certificate of assured water supply if both of the following conditions are met:

1. The subdivision's plat has not changed since the effective date of this Article.

2. Water service is currently available to each lot.

**Historical Note**

Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-703. Assured Water Supply Requirement - Physical Availability; Continuous Availability; Legal Availability**

**A.** The director shall approve an application for a certificate of assured water supply or designation of assured water supply only if the director determines that the certificate applicant or designation of AWS applicant will have sufficient supplies of groundwater, surface water, or effluent which are physically available as determined under subsection (B) of this Section, continuously available as determined under subsection (C) of this Section, and legally available under subsection (D) of this Section.

**B.** The director shall determine whether the applicant will have a sufficient supply of water which will be physically available to satisfy the applicant's 100-year projected water demand, if the applicant is a certificate applicant, or will exceed the appli-

cant's current and committed demands for 100 years, if the applicant is a designation of AWS applicant, in accordance with the following:

1. If the proposed source is groundwater:
   a. The director shall determine the volume of ground water which will be available for the proposed use:
      i. If the applicant is a designation of AWS applicant, from wells owned by the applicant which are located within the applicant's service area as indicated on the current service area map on the date of application and from proposed wells which the director determines are likely to be constructed for future uses by the designation of AWS applicant within the applicant's service area.
      ii. If the applicant is a certificate applicant which will be served by a central distribution system, from wells which will serve the development which are located within the proposed municipal provider's service area or wells which the director determines are likely to be constructed for future uses within the service area of the proposed municipal provider.
      iii. If the applicant is a certificate applicant which will not be served by a central distribution system, from wells which the director determines are likely to be constructed on individual lots.
   b. In determining the quantity of groundwater available for the proposed use, the applicant shall submit a hydrologic study using a method of analysis approved by the director which accurately describes the hydrology of the affected area.
   c. The director shall consider groundwater to be physically available only if the groundwater is to be withdrawn from depths not to exceed the following 100-year depth-to-static water level criteria:

| Location of withdrawal / type of development | Maximum 100-year depth-to-static water level |
|---|---|
| i. Phoenix, Tucson, or Prescott Active Management Areas / developments other than dry lot developments | 1000 feet below land surface |
| ii. Pinal Active Management Area / developments other than dry lot developments | 1100 feet below land surface |
| iii. For areas inside of active management areas / dry lot developments | 400 feet below land surface |

   d. The director shall determine the 100-year depth-to-static water level by adding:
      i. The depth-to-static water level present on the date of application for the area from which groundwater withdrawals are proposed.
      ii. The projected declines caused by existing demand, using the projected decline in the 100-year depth-to-static water level for the area from which groundwater withdrawals are proposed to occur during the 100-year period after the date of application, calculated using records of declines for the maximum period of time for which records are available up to 25 calendar years prior to the date of application. If evidence is provided to the director of likely changes in pumpage patterns and aquifer conditions as opposed to those patterns and conditions occurring historically, the director may determine projected declines using a model rather than evidence of past declines.
      iii. The projected decline in the depth-to-static water level for the area from which groundwater withdrawals are proposed to occur during the 100-year period after the date of application, calculated by adding the projected groundwater demand of items (B)(1)(d)(iii)(1) and (2) and subtracting the projected demand of item (B)(1)(d)(iii)(3):
         (1) Committed demand.
         (2) Other lots within developments for which the director has issued an analysis of assured water supply pursuant to R12-15-712.
         (3) The projected demand of subdivided lots whose plats have been abandoned.
      iv. The projected decline in depth-to-static water level for the area from which groundwater withdrawals are proposed which the director projects will result from the applicant's proposed use over a 100-year period.
2. If the proposed source of water is surface water, other than Central Arizona Project water or Colorado River water:
   a. The director shall determine the quantity of water annually available for the proposed use taking into consideration the priority date of the right or claim by calculating 120% of the firm yield of the proposed source from the point of diversion as limited by the capacity of the diversion works; except that, if the applicant demonstrates that it will use an alternative source of water which is physically available during times of shortage in the proposed surface water supply, the director shall determine the quantity of water annually available for the proposed use by calculating 100% of the median flow of the proposed source at the point of diversion as limited by the capacity of the diversion works.
   b. The director shall determine the firm yield or median flow as follows:
      i. By calculating the firm yield or median flow at the point of diversion on the basis of a minimum of 20 calendar years of flow records from the point of diversion unless 20 calendar years of records are unavailable and the director deter mines that a shorter period of record provides information necessary to determine the firm yield or median flow; or
      ii. By calculating the firm yield or median flow at the point of diversion using a hydrologic model which projects the firm yield or median flow taking into account a minimum of 20 calendar years of historic river flows, changes in reservoir storage facilities, and projected changes in water demand. The yield available to any appli-

cant may be composed of rights to stored water, direct diversion, or normal flow rights. If the permit for the water right was issued less than five years prior to the date of application, the director shall require the applicant to submit evidence, as appropriate, in accordance with this subdivision.

3. If the proposed source of water is Central Arizona Project water:
   a. If an applicant has a non-declining, long-term municipal and industrial subcontract for Central Arizona Project water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water established in the subcontract;
   b. If an applicant has a lease for Indian priority Central Arizona Project water, the director shall calculate the annual quantity of water available for the proposed use by calculating 100% of the annual amount of water established in the lease;
   c. If an applicant has a subcontract for Central Arizona Project water other than a non-declining, long-term, municipal and industrial subcontract or a lease for Indian priority Central Arizona Project water, and the applicant demonstrates a backup supply of water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water established in the subcontract. The backup supply of water may be established with approval of the director by one or more of the following:
      i. A drought response plan;
      ii. Recharge credits;
      iii. A contract for water with a multi-county water conservation district, an active management area water district, or a county water augmentation authority;
      iv. Evidence that the applicant is a member service area or a member land of a multi-county water conservation district, a water district member land or water district member service area of an active management area water district, or a district member of a groundwater replenishment district;
      v. Evidence of other backup supplies which are physically, continuously, and legally available.
   d. If the applicant does not submit evidence of sufficient backup supplies, the director shall determine the annual availability of the Central Arizona Project water supply by establishing a percentage of the annual amount established in the subcontract which the director determines to reasonably reflect the reliability of the applicant's Central Arizona Project water supply.
4. If the proposed source of water is Colorado River water:
   a. And the priority of the contract provides reliability equal to or better than Central Arizona Project municipal and industrial water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water established in the contract;
   b. And the contract provides reliability which is less than Central Arizona Project municipal and industrial water, and the applicant demonstrates a backup supply of water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water set forth in the contract. The backup supply of water may be established by one or more of the following:
      i. A drought response plan;
      ii. Recharge credits;
      iii. A contract for water with a multi-county water conservation district, an active management area water district, or a county water augmentation authority;
      iv. Evidence that the applicant is a member service area or a member land of a multi-county water conservation district, a water district member land or water district member service area of an active management area water district, or a district member of a groundwater replenishment district that will provide replenishment services;
      v. Evidence of other backup supplies which are physically, continuously, and legally available.
   c. If the applicant does not submit evidence of sufficient backup supplies, the director shall determine the annual availability of the Colorado River water supply by establishing a percentage of the annual amount established in the contract which the director determines to reasonably reflect the reliability of the applicant's Colorado River water supply.
5. If the proposed source of water is effluent which will be used directly:
   a. The director shall:
      i. Estimate the annual volume of effluent which will be available to the applicant by evaluating the current, metered production or the projected production of effluent;
      ii. Limit the annual volume of effluent calculated to be available under subsection (B)(5)(a)(i) to the applicant's projected annual demand for the direct use of the effluent;
   b. The applicant's proposed effluent use shall be in accordance with any water quality requirements established by the Arizona Department of Environmental Quality.
6. If the proposed source of water is water to be recovered from a storage project and the project is permitted to a person other than an active management area water district or a county water augmentation authority:
   a. The director shall calculate the volume of water which will be available for 100 years as represented by credits for stored water existing on the date of application in a manner consistent with the provisions of A.R.S. Title 45, Chapter 3, Articles 1 and 3.
   b. If the applicant proposes to use credits for stored water which do not exist at the date of application, the director shall evaluate the following in determining whether to include the proposed credits in calculating the volume of the applicant's proposed supplies:
      i. The terms of a contract to obtain water to store in a storage project.
      ii. The physical availability, continuous availability, and legal availability of the water proposed to be stored or the in lieu water, as applicable.
      iii. The presence of an existing storage project which will be available for use for the proposed storage.
      iv. The existence of all required permits of an adequate duration.

7. If the proposed source of water is credits for stored water which do not exist at the date of application, and which are proposed to be obtained from an active management area water district or a county water augmentation authority, the director shall consider the water represented by the credits to be physically available only if all of the following apply:
   a. The authority or district has the legal right to sell the credits to the applicant.
   b. The authority or district has prepared and the director has approved a plan of operation for the authority or district which the authority or district updates at least every five calendar years that evidences the authority's or district's current capability to meet the water demands of its customers for the five calendar years following the calendar year in which the authority or district submits its plan and the authority's or district's projected capability to meet the water demands of its customers for the subsequent 15 calendar years.
   c. The authority or district and the applicant have executed an agreement for the sale of the credits. The agreement shall require:
      i. That the applicant fund an escrow account with a sum of money necessary to purchase credits which will satisfy five times the applicant's total annual water demand as calculated in subsection (B)(7)(c)(v).
      ii. That if the director approves the application, the funds in the escrow account shall be transferred to the authority or district.
      iii. That if the applicant is a certificate applicant, the applicant shall also pay to the authority or district each calendar year for a period of ten calendar years, beginning the calendar year in which the plat is recorded, a sum of money necessary to purchase credits which will satisfy twice the applicant's total annual water demand.
      iv. That if the applicant is a designation of AWS applicant, the applicant shall also pay to the authority or district each calendar year for a period of ten calendar years, beginning the calendar year in which the applicant first receives stored credits from the authority or district, a sum of money necessary to purchase credits which will satisfy twice the applicant's total annual water demand.
      v. That after the expiration of the time period specified in either subsection (B)(7)(c)(iii) or (iv), whichever is applicable, the certificate applicant or the designation of AWS applicant shall pay the authority or district an annual sum of money necessary to purchase credits which will satisfy the applicant's total annual water demand. The applicant's total annual water demand shall be calculated by subtracting both the volume of groundwater the applicant may use consistent with the management goal as established in R12-15-705 and the volume of any other source of water which the director has determined to be physically available to the applicant pursuant to this section from the applicant's projected 100-year water demand and dividing the result by 100.
   d. The director determines that the applicant has provided financial guarantees to ensure that the applicant will perform its obligations under the agreement required in subsection (B)(7)(c).
8. If an applicant proposes to recover stored water from outside the area of impact, sufficient water must exist for the withdrawals consistent with the depth limitations established in subsection (b)(1)(c) as well as any criteria for the withdrawals prescribed in the management plan in effect at the date of application.
9. If the proposed source of water is groundwater which the applicant proposes to transfer from a groundwater basin outside the active management area where the use is proposed to a basin inside the active management area where the use is proposed, the director shall calculate the volume of groundwater physically available pursuant to the provisions of subsection (B)(1), except to the extent the depth-to-static water level, decline rate, or maximum volume of water is otherwise prescribed by A.R.S. Title 45.
10. If the applicant will obtain the source of water through a water exchange agreement, evidence that the source of water which the applicant or the applicant's customers will use will be physically available in accordance with the terms of this subsection.

**C.** The director shall determine that an applicant has or will have a sufficient supply of water which will be continuously available if the applicant is a certificate applicant which presents sufficient evidence that adequate delivery, storage, and treatment works will be in place in a timely manner to satisfy the 100-year projected water demand of the applicant or the applicant is a designation of AWS applicant which presents sufficient evidence that adequate delivery, storage, and treatment works will be in place in a timely manner to exceed the applicant's current and committed demands for 100 years, and:
1. If the proposed source of water is groundwater to be withdrawn by a municipal provider, wells will be constructed in a timely manner within the municipal provider's service area which:
   a. Are of a capacity which exceeds the applicant's current and committed demands on a continuous basis for 100 years, if the applicant is a designation of AWS applicant.
   b. Are of a capacity which satisfies the applicant's 100-year projected water demand, if the applicant is a certificate applicant.
2. If the proposed source of water is surface water other than Central Arizona Project water or Colorado River water, the projected volume to be diverted from the source is perennial at the point of diversion, unless the director determines that a continuous supply will exist because of one or more of the following:
   a. Adequate storage facilities will be available to the applicant in a timely manner to store water for use when a volume of surface water is not available at the point of diversion to satisfy the applicant's water demands. For the purposes of this subsection (c)(2)(a), adequate storage facilities means:
      i. For a designation of AWS applicant, facilities which can store enough water to exceed the applicant's current and committed demands for the duration of an anticipated shortage.
      ii. For a certificate applicant, facilities which can store enough water to satisfy the applicant's 100-year projected water demand for the duration of an anticipated shortage.

b. The applicant has presented evidence of supplies of other sources of water which the director has determined will be physically, continuously, and legally available to the applicant to supplement the applicant's proposed surface water supplies.
c. The applicant will withdraw surface water from wells which are of a capacity:
i. To exceed the current and committed demands of the applicant on a continuous basis for 100 years, if the applicant is a designation of AWS applicant.
ii. To satisfy the 100-year projected water demand of the applicant on a continuous basis if the applicant is a certificate applicant.
d. The applicant has submitted a drought response plan which the director has determined will conserve an equal volume of water to the volume of water which is subject to drought.

3. If the proposed source of water is Central Arizona Project water, the director determines that a continuous supply will exist because of one or more of the following:
a. Adequate storage facilities will be available to the applicant in a timely manner to store water when a volume of Central Arizona Project water is not available to meet the applicant's water demands. For the purposes of this subsection (c)(3)(a), adequate storage facilities means:
i. For a designation of AWS applicant, facilities which can store enough water to exceed the applicant's current and committed demands for the duration of an anticipated shortage.
ii. For a certificate applicant, facilities which can store enough water to satisfy the applicant's 100-year projected water demand for the duration of an anticipated shortage.
b. The applicant has presented evidence of supplies of other sources of water which the director has determined will be physically, continuously, and legally available to the applicant to supplement the proposed Central Arizona Project water supplies.
c. The applicant has submitted a drought response plan which the director has determined will conserve an equal volume of water to the volume which is subject to drought.

4. If the proposed source of water is Colorado River water, the director determines that a continuous supply will exist because of one or more of the following:
a. Adequate storage facilities will be available to the applicant in a timely manner to store water when a volume of Colorado River water is not available to meet the applicant's water demands. For the purposes of this subsection (c)(4)(a), adequate storage facilities means:
i. For a designation of AWS applicant, facilities which can store enough water to exceed the applicant's current and committed demands for the duration of an anticipated shortage.
ii. For a certificate applicant, facilities which can store enough water to satisfy the applicant's 100-year projected water demand for the duration of an anticipated shortage.
b. The applicant has presented evidence of supplies of other sources of water which the director has determined will be physically, continuously, and legally available to the applicant to supplement the proposed Colorado River water supplies.
c. The applicant has submitted a drought response plan which the director has determined will conserve an equal volume of water to the volume of water which is subject to drought.

5. If the proposed source of water is effluent, the applicant presents evidence that:
a. If the applicant is a designation of AWS applicant, the applicant's ability to exceed the applicant's current and committed demands for 100 years which are to be satisfied with effluent will not be affected by fluctuations in the supply of effluent.
b. If the applicant is a certificate applicant, the applicant's ability to satisfy the applicant's 100-year projected water demand which is to be satisfied with effluent will not be affected by fluctuations in the supply of effluent.

6. If the applicant will obtain the proposed source of water through a water exchange agreement, evidence that the source of water which the applicant or the applicant's customers will use will be continuously available in accordance with the provisions of this subsection.

**D.** The director shall determine that an applicant will have sufficient supplies of water which will be legally available to the applicant to satisfy the applicant's 100-year projected water demand, if the applicant is a certificate applicant, or will exceed the applicant's current and committed demands for 100 years, if the applicant is a designation of AWS applicant, in accordance with the following:
1. If the proposed source of water is groundwater to be withdrawn within an active management area, evidence that the certificate applicant or the designation of AWS applicant has a service area right or other appropriate non-irrigation grandfathered right to withdraw the ground water.
2. If the proposed source of water is surface water, other than Central Arizona Project water or Colorado River water:
a. The applicant shall submit the following evidence:
i. Evidence that the applicant has a certificated surface water right, decreed water right, or a pre-1919 claim for the proposed source, or evidence that the applicant is not the holder of a water right but receives water pursuant to a water right which is appurtenant to the land which is the subject of the application, providing the water right may neither be legally withheld nor severed and transferred by the holder of the water right.
ii. If the certificated surface water right or decreed water right pre-dates the date of application by at least five years, or the applicant submits a pre-1919 claim, evidence that the surface water supply has been used pursuant to the applicable water right or claim within the five years prior to the date of application, evidence that a court has determined that the right has not been abandoned, or evidence that the non-use would not have resulted in an abandonment of the right pursuant to A.R.S § 45-189.
b. And the applicant presents evidence of a certificated surface water right, a decreed water right, or a pre-1919 claim, the director shall determine that the volume of water which is legally available pursuant to the applicant's water right or claim is equal to the face value of the right or claim. If the right or claim is subsequently adjudicated, the director shall deter-

mine the volume of water which is legally available based on the adjudicated amount of water.

3. If the proposed source of water is Central Arizona Project water, evidence that the applicant has entered into a subcontract with a multi-county water conservation district for the proposed volume of Central Arizona Project water. The director shall presume that a 50 year long-term, non-declining municipal and industrial subcontract is sufficient evidence of the legal availability to the applicant of the volume of Central Arizona Project water specified in the subcontract for 100 calendar years.
4. If the proposed supply of water is Colorado River water, evidence that the applicant has a contract with the United States Secretary of the Interior for the proposed supply.
5. If the proposed source of water is effluent, evidence that the applicant has the legal right to use, recapture, or reuse the effluent.
6. If the applicant will obtain the proposed source of water through a written contract other than a water exchange agreement, a contract between a certificate applicant and the municipal provider proposed to serve the applicant, a contract with the United States Secretary of the Interior for Colorado River water, or a subcontract with a multi-county water conservation district, the director shall determine whether the proposed source of water is legally available to the applicant, the term of years for which the source is legally available, and the volume of water which is legally available as follows:
   a. The director shall determine that the proposed source of water is legally available to the applicant only if:
      i. The person providing the water under the contract has a legal right to the water in accordance with the terms of this subsection.
      ii. The director determines that the terms of the contract will ensure that the proposed source of water will be delivered to the applicant.
   b. The director shall determine the term of years for which the proposed source of water is legally available based on the term of years remaining in the contract.
   c. The director shall determine the quantity of water legally available to the applicant based on the volume established in the contract.
7. If the applicant is a certificate applicant, the applicant has submitted evidence indicating that the applicant has entered into a notice of intent to serve agreement signed by both the applicant and the municipal provider proposed to serve the applicant, which contains a statement of the municipal provider's intent to serve all of the proposed lots and uses that are subject to this determination of an assured water supply.
8. If the applicant is a certificate applicant and the municipal provider proposed to serve the applicant is a city or town, the applicant has submitted evidence indicating that the applicant is located within the incorporated limits of the city or town or the applicant has submitted evidence of the legal right of the city or town to serve water to the applicant outside the city or town's incorporated limits.
9. If the applicant is a certificate applicant and the municipal provider proposed to serve the applicant is a private water company, the applicant has submitted evidence:
   a. Of the private water company's certificate of convenience and necessity approved by the Arizona Corporation Commission. The director shall only determine that the water provided by the private water company is legally available if the certificate of convenience and necessity is free of conditions which would likely result in the revocation of the certificate of convenience and necessity.
   b. That the applicant is located within the certificated area or within any other area in which the Arizona Corporation Commission authorizes the private water company to serve water.
10. If the applicant is a private water company applying for a designation of assured water supply, evidence that the applicant has a certificate of convenience and necessity approved by the Arizona Corporation Commission authorizing the proposed water use.
11. If the applicant will obtain the proposed source of water through a water exchange agreement, evidence that the applicant's water exchange agreement satisfies the requirements of A.R.S. Title 45.
12. If the director can only determine the proposed source of water to be physically available under this Section because of the use of storage facilities by the applicant, evidence of the applicant's legal right to store water in the facilities.

**E.** Except for a certificate applicant which is a member land of a multi-county water conservation district or a water district member land of an active management area water district, for the purposes of determining the physical, continuous, and legal availability of surface water, the director shall determine that the proposed source is unavailable if the certificate applicant does not independently obtain a renewable water source and the municipal provider is undesignated and would fail to satisfy the requirements established in R12-15-705 if the provider were subject to those requirements.

**F.** To determine compliance with the requirements established in subsections (B), (C), and (D) of this Section, the director shall maintain a record, updated annually, of the total water supply and demand status for each holder of a certificate of assured water supply and designation of assured water supply.

**G.** The director shall make an initial determination that a certificate applicant or a designation of AWS applicant satisfies the requirements established in subsections (B), (C), and (D) of this Section if the director determines that:
1. For a certificate applicant, the volume of the applicant's proposed supply of water which the director determines to be physically, continuously, and legally available in accordance with the provisions of this Section is equal to or exceeds the volume of the applicant's 100-year projected water demand.
2. For a designation of AWS applicant, the volume of the applicant's proposed supply of water which the director determines to be physically, continuously, and legally available in accordance with the provisions of this Section exceeds the volume of the applicant's current and committed demands for 100 years.

**H.** To determine the volume of the supply of surface water and effluent which is physically, continuously, and legally available for an applicable period of years, the director will multiply the number of years in that period by the annual volume of those sources of water which the director determines to satisfy the requirements of this Section.

**I.** The volume of groundwater which the director determines to satisfy the requirements of this Section shall not exceed the volume of groundwater which the director determines to be consistent with the management goal of the active management area pursuant to R12-15-705.

**J.** After the director calculates the volume of water, from any source, which the holder of a certificate or designation has

proven to satisfy the requirements of this Section, the director shall annually subtract from the volume attributed to groundwater and stored credits the volume of groundwater and stored credits which the holder of the certificate or designation uses each calendar year.

**K.** For a holder of a designation whose designation has been modified under R12-15-709 that calendar year, the director shall add any additional volume of water, from any source, which the director determines is physically, continuously, and legally available for the proposed use.

**L.** The director shall determine that a holder of a certificate or a designation is no longer in compliance with the requirements established in this Section if the holder of the certificate or the designation no longer has a physically, continuously, and legally available volume of water from any source:
1. Which equals or exceeds the holder's remaining projected 100-year water demand, if the holder is a holder of a certificate; or
2. Which exceeds the holder's current and committed demands for 100 years, if the holder is a holder of a designation.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-704. Assured Water Supply Requirement - Water Quality**

**A.** The director shall approve an application for a certificate of assured water supply or designation of assured water supply only if the applicant submits information from which the director determines that the applicant's proposed water sources will satisfy existing state water quality requirements and any other water quality standards which are effective on the date of application and which are applicable to the proposed water use after any required treatment.

**B.** In making the determination described in subsection (A) of this Section, the director may consider expected changes in the quality of the proposed sources of water, including the migration of poor quality groundwater.

**C.** The director shall establish as a condition for a designation of assured water supply that the municipal provider shall satisfy any state water quality requirements established for the applicant's proposed use after the date of designation. If the municipal provider fails to satisfy this condition, the director may terminate the designation of assured water supply after consultation with the director of the Arizona Department of Environmental Quality.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-705. Assured Water Supply Requirement - Consistency with Management Goal**

**A.** The director shall approve an application for a certificate of assured water supply or a designation of assured water supply only if the applicant submits information from which the director determines that the proposed groundwater use will be consistent with the achievement of the management goal of the active management area.

**B.** In the Prescott Active Management Area, the proposed use of an applicant for a certificate of assured water supply or a designation of assured water supply is consistent with the achievement of the management goal of the active management area, regardless of the volume of groundwater withdrawn from within the active management area for the proposed use, until the director enters a final decision and order determining that the Prescott Active Management Area is no longer at safe-yield under the provisions of this Article.

**C.** The director shall determine whether the Prescott Active Management Area continues to be at safe-yield by analyzing a minimum of three annual data reports containing information on:
1. Groundwater levels,
2. Changes in groundwater levels,
3. Pumpage volumes from confined and unconfined aquifers,
4. Long-term precipitation records,
5. Surface water flow records,
6. A comparative evaluation of groundwater conditions as related to climatic normal conditions.

**D.** When the reports from three successive annual data reports using normalized information, including committed demand and demands associated with the groundwater allocation for designated entities for calendar year 1995, made in accordance with subsection (F)(2), show ongoing water level declines and increased pumpage, the director shall make a preliminary determination that the Prescott Active Management Area is no longer at safe-yield.

**E.** Prior to entering a final decision and order that the Prescott Active Management Area is no longer at safe yield, the director shall publish a notice once each week for two consecutive weeks in a newspaper of general circulation in Yavapai County stating that the director shall conduct a hearing to determine whether the Prescott Active Management Area is no longer at safe-yield. After publishing notice in the manner described above, the director shall hold a hearing in the Prescott Active Management Area within 30 days of the last notice. Any person may appear at the hearing and submit oral or documentary evidence on the issue of whether the Prescott Active Management Area is no longer at safe-yield. Persons may submit written comments concerning matters discussed at the hearing within 30 days after the hearing. Within 180 days after the termination of the public comment period, the director shall enter a final decision and order determining either that the Prescott Active Management Area remains at safe-yield or that the Prescott Active Management Area is no longer at safe-yield.

**F.** If the director enters a final decision and order determining that the Prescott Active Management Area is no longer at safe-yield, the director shall calculate the volume of groundwater which may be withdrawn consistent with the management goal of the active management area in accordance with subsection (A) of this Section by adding to the volume of assured water supply credits determined in accordance with subsection (M) of this Section, the volume calculated as follows:
1. If the application is for a certificate of assured water supply:
   a. Subtract the declaration year from 2025, unless the date of application occurs subsequent to the declaration year, in which case subtract the year of the date of application from 2025.
   b. Determine the total volume of water, from any source, projected by the director to meet 100% of the applicant's water demands for the 15th calendar year after the date of application consistent with the conservation requirements established in the management plan in effect on the date of application for the municipal provider proposed to serve the applicant.
   c. Multiply the number determined in subsection (F)(1)(a) by the amount calculated in subsection (F)(1)(b).
   d. Divide the product obtained in subsection (F)(1)(c) by two. The minimum volume which may be calculated in this paragraph is zero acre-feet.

2. If the application is for a designation of assured water supply:
   a. And, except as provided in subsection (F)(2)(c), the date of application occurs within 180 days after the declaration date:
      i. Multiply 100 by the volume of groundwater withdrawn from within the active management area by the applicant during the declaration year or calendar year 1995, whichever volume is greater, consistent with the conservation requirements established for the applicant in the management plan in effect on the date of application.
      ii. Determine the volume of the applicant's total water demand, from any source, for the declaration year consistent with the conservation requirements established for the applicant in the management plan in effect on the date of application.
      iii. Determine the volume of the applicant's total water demand, from any source, for the 15th calendar year after the declaration year consistent with the conservation requirements established for the applicant in the management plan in effect on the date of application.
      iv. Subtract the volume calculated in subsection (F)(2)(a)(ii) from the volume calculated in subsection (F)(2)(a)(iii).
      v. Subtract the declaration year from 2025.
      vi. Multiply the volume calculated in subsection (F)(2)(a)(iv) by the number calculated in subsection (F)(2)(a)(v).
      vii. Divide the product obtained in subsection (F)(2)(a)(vi) by two.
      viii. Add the volume calculated in subsection (F)(2)(a)(vii) to the volume calculated in subsection(F)(2)(a)(i).
   b. And, except as provided in subsection (F)(2)(c) the date of application does not occur within 180 days after the declaration date, subtract from the volume calculated in subsection (F)(2)(a) the volume of groundwater calculated in subsection (F)(2)(b)(iii). The volume shall be calculated as follows:
      i. Determine the volume of groundwater with drawn by the applicant from within the active management area during the period beginning January 1 of the declaration year and ending either December 31 of the declaration year or December 31 of the calendar year prior to the date of the application, whichever is later.
      ii. Multiply the volume of groundwater withdrawn by the applicant from within the active management area in the declaration year by the number of calendar years in the period beginning with the declaration year and ending with the calendar year prior to the date of application.
      iii. Subtract from the volume calculated in subsection (F)(2)(b)(i) the volume calculated in sub section (F)(2)(b)(ii).
   c. And the applicant did not exist as of the declaration date, or the date of application occurs after calendar year 2025, the maximum volume of groundwater which the applicant may use for the proposed use for 100 years from the date of application consistent with the achievement of the management goal for the Prescott Active Management Area is zero acre-feet.
3. If the director receives an application for a certificate of assured water supply or a designation of assured water supply prior to the declaration year, the director shall perform the calculations described in subsection (F)(1) or (2) after the director enters a final decision and order determining that the Prescott Active Management Area is no longer at safe-yield.

**G.** Except as provided in subsection (I) or (J) of this Section, with respect to the Phoenix and Tucson Active Management Areas, the director shall determine the volume of groundwater which a certificate or a designation of AWS applicant may withdraw from within the active management area for the proposed use for 100 years from the date of application consistent with the management goal of the active management area by adding to any volume of credits determined by the director, in accordance with subsections (K) and (M) of this Section, the volume of groundwater calculated as follows:
1. If the application is for a certificate of assured water supply, multiply the applicable allocation factor located in the table below by the total volume of water, from any source, projected to meet 100% of the applicant's water demand in the 15th calendar year after the date of application, consistent with the applicable conservation requirements established for the municipal provider proposed to serve the applicant in the management plan in effect on the date of application:

| LOCATION OF PROPOSED DEVELOPMENT | MANAGEMENT PERIOD / DATE OF APPLICATION | ALLOCATION FACTOR |
|---|---|---|
| TUCSON AMA | Second | 15 |
| | Third | 8 |
| LOCATION OF PROPOSED DEVELOPMENT | MANAGEMENT PERIOD / DATE OF APPLICATION | ALLOCATION FACTOR |
| | Fourth | 4 |
| | Fifth | 2 |
| | After Fifth | 0 |
| PHOENIX AMA | Second | 7.5 |
| | Third | 4 |
| | Fourth | 2 |
| | Fifth | 1 |
| | After Fifth | 0 |

2. If the application is for a designation of assured water supply and the applicant provided water to its customers prior to the effective date of this Article, multiply the total volume of water, from any source, consistent with the first intermediate conservation requirement established in the second management plan, provided by the applicant to its customers during the calendar year prior to the effective date of this Article by 15 if the applicant is located in the Tucson Active Management Area or by 7½ if the applicant is located in the Phoenix Active Management Area.
3. If the application is for a designation of assured water supply, and the applicant commences providing water to its customers on or after the effective date of this Article, zero acre-feet of groundwater.

**H.** Except as provided in subsection (I) or (J) of this Section, with respect to the Pinal Active Management Area, the director shall determine the volume of groundwater which an applicant for a certificate of assured water supply or a designation of assured water supply may withdraw from the active management area consistent with the achievement of the management goal of the active management area by adding the volume of assured water supply credits determined annually in accordance with subsection (M) of this Section to the volume calculated as follows:

1. If the applicant is a certificate applicant which will be served by a small municipal provider or a municipal provider which is required to comply with a total-gallons-per-capita-per-day requirement or a non-per capita requirement established in the management plan in effect on the date of application for the Pinal Active Management Area:
   a. Determine the proposed development's 15-year build-out population.
   b. Multiply the population determined in subsection (H)(1)(a) by the product of 125 gallons per capita per day and the number of days in the calendar year.
2. If the applicant is a certificate applicant which will be served by an existing municipal provider which is required to comply with a residential gallons-per-capita-per-day requirement established in the management plan in effect on the date of application for the Pinal Active Management Area, zero acre-feet.
3. If the applicant is a certificate applicant which will be served by a new municipal provider which is required to comply with a residential gallons-per-capita-per-day requirement established in the management plan in effect on the date of application for the Pinal Active Management Area:
   a. Determine the proposed development's 15-year build-out population.
   b. Multiply the population determined in subsection (H)(3)(a) by the product of 62.5 gallons per capita per day and the number of days in the calendar year.
4. If the applicant is a designation of AWS applicant which is a small municipal provider or a municipal provider which is required to comply with a total gallons-per-capita-per day requirement or a non-per capita program requirement established in the management plan in effect on the date of application for the Pinal Active Management Area:
   a. Determine the applicant's service area population for the calendar year.
   b. Multiply the population determined in subsection (H)(4)(a) by the product of 125 gallons per capita per day and the number of days in the calendar year.
5. If the applicant is a designation of AWS applicant which is an existing municipal provider which is required to comply with a residential gallons-per-capita-per-day requirement established in the management plan in effect on the date of application for the Pinal Active Management Area, the largest volume of groundwater withdrawn by the applicant within the active management area in any one calendar year from calendar year 1980 through calendar year 1989.
6. If the applicant is a designation of AWS applicant which is a new municipal provider which is required to comply with a residential gallons-per-capita-per-day requirement established in the management plan in effect on the date of application for the Pinal Active Management Area:
   a. Determine the applicant's service area population for the calendar year.

b. Multiply the population determined in subsection (H)(6)(a) by the product of 62.5 gallons per capita per day and the number of days in the calendar year.

**I.** If a municipal provider which is not a deemed provider in the Phoenix, Tucson, or Pinal Active Management Areas files an application within 180 days after the effective date of this Article as required by R12-15-702(D), the director shall determine that the proposed use of the applicant will be consistent with the management goal of the active management area for calendar years 1996, 1997, and 1998, regardless of the volume of groundwater withdrawn by the applicant within the active management area. Beginning calendar year 1999, the applicant shall comply with the provisions of this Section.

**J.** If a municipal provider which is a deemed provider files an application to be designated on or before January 1, 1997, the director shall determine that the proposed use of the applicant is consistent with the management goal for the calendar years 1998, 1999, and 2000, regardless of the volume of groundwater withdrawn by the applicant within the active management area. Beginning calendar year 2001, the applicant shall comply with the provisions of this Section.

**K.** After the director issues a designation of assured water supply to a municipal provider in the Tucson or Phoenix Active Management Area, the director shall, prior to the beginning of each calendar year, add a volume of groundwater to the volume calculated for the applicant in subsection (G) of this Section in determining whether the use of the provider is consistent with the achievement of the management goal of the active management area. The director shall calculate the volume of groundwater by multiplying the provider's total water use, from any source, in the previous calendar year, by the standard incidental recharge factor of 4%. The director may establish a different incidental recharge factor for the provider if the provider demonstrates to the satisfaction of the director that the ratio of the average annual amount of incidental recharge expected to be attributable to the municipal provider during the management period to the average annual amount of water expected to be withdrawn, diverted, or received for delivery by the provider for use within its service area during the management period is different than 4%. If a provider applies for a variance from the standard incidental recharge factor, the provider shall do so in a manner consistent with A.R.S. § 45-565.01(D)(1).

**L.** The director shall establish an assured water supply credit for the extinguishment of a grandfathered groundwater right if all of the following conditions are met:

1. The owner of the right submits to the director a notarized statement of intent to extinguish the grandfathered groundwater right.
2. The certificate evidencing the grandfathered groundwater right is returned to the director or the director receives an affidavit evidencing that the certificate has been lost. If only a portion of a type 1, non-irrigation grandfathered right or irrigation grandfathered right is extinguished, the director shall issue a new certificate for the remainder of the right.
3. If the right being extinguished is a type 1, non-irrigation grandfathered right or an irrigation grandfathered right, the owner of the right submits sufficient evidence of ownership of the land associated with the grandfathered groundwater right.

**M.** The amount of the assured water supply credit established for extinguishing a grandfathered right is as follows:

1. For the extinguishment of an irrigation grandfathered right, or a portion thereof in the Prescott, Phoenix, or Tucson Active Management Area, the amount calculated by multiplying 1.5 acre-feet per acre by the number of irrigation acres associated with the extinguished right and multiplying the product by the difference calculated by subtracting the calendar year of extinguishment from 2025. If only a portion of an irrigation grandfathered right is extinguished, only those irrigation acres associated with the portion of the right which is extinguished shall be included in the calculation.
2. For the extinguishment of an irrigation grandfathered right in the Pinal Active Management Area, after the right or a portion thereof is extinguished, add annually the product of 3.0 acre-feet per acre multiplied by the number of irrigation acres associated with the extinguished right in each calendar year prior to 2000, and the product of 1.5 acre-feet per acre multiplied by the number of irrigation acres associated with the extinguished right for each calendar year thereafter. If only a portion of an irrigation grandfathered right is extinguished, only those irrigation acres associated with the portion of the right which is extinguished shall be included in the calculation.
3. For the extinguishment of a type 1, non-irrigation grandfathered right or a portion thereof extinguished in the Prescott, Phoenix, or Tucson Active Management Areas, the amount calculated by:
   a. Subtracting the calendar year of extinguishment from 2025.
   b. Multiplying 1.5 acre-feet per acre by the number of acres to which the type 1, non-irrigation grandfathered right is appurtenant.
   c. Multiplying the product calculated in subsection (M)(3)(b) by the difference calculated in subsection (M)(3)(a).
4. For the extinguishment of a type 1, non-irrigation grandfathered right or a portion thereof in the Pinal Active Management Area, the amount calculated annually by multiplying 1.5 acre-feet per acre by the number of acres to which the type 1 non-irrigation right is appurtenant. If only a portion of the type 1 non-irrigation right is extinguished, only those acres associated with the portion of the right which is extinguished shall be included in the calculation.
5. For the extinguishment of a type 2, non-irrigation grandfathered right in the Prescott, Phoenix, or Tucson Active Management Area, the amount calculated by multiplying the number of acre-feet indicated on the certificate by the difference between the calendar year of extinguishment and 2025.
6. For the extinguishment of a type 2, non-irrigation grandfathered right in the Pinal Active Management Area, an annual amount equal to the number of acre-feet indicated on the certificate.

**N.** A municipal provider receiving credits for the extinguishment of a grandfathered groundwater right may convey the credits. The holder of a certificate may not convey credits obtained for the extinguishment of a grandfathered groundwater right unless the credits are conveyed as part of the transfer of the certificate to which they have been applied.

**O.** If an irrigation grandfathered right which is extinguished has a debit balance in its flexibility account established under A.R.S. § 45-467, the director shall subtract the amount of the debit from the amount of the assured water supply credit calculated in subsection (M) of this Section.

**P.** The director shall not give any assured water supply credit for the extinguishment of a type 1, non-irrigation grandfathered right which was requested to be included by a city or town in the Tucson Active Management Area in the determination

made under A.R.S. § 45-463(F) nor to the holder of a type 1, non-irrigation grandfathered right who the director determines is likely to continue to receive groundwater from an undesignated municipal provider pursuant to its service area right or pursuant to a groundwater withdrawal permit. The director shall not give any assured water supply credit for the extinguishment of a type 2, non-irrigation grandfathered right which was issued for the purpose of allowing mineral extraction or the generation of electrical power.

**Q.** The volume of groundwater which the director determines may be used by a person consistent with the achievement of the management goal of the active management area pursuant to subsection (F), (G), (K), or (M) of this Section may be used by the person in any calendar year.

**R.** To determine compliance with the consistency with management goal requirements established in this Section for the Prescott, Phoenix, or Tucson Active Management Area, the director shall maintain an account updated annually of the water supply and demand status for each holder of a certificate of assured water supply and each holder of a designation of assured water supply. The director shall subtract annually the volume of groundwater, except for groundwater excluded under subsection (T) of this Section, which was withdrawn from within the applicable active management area and used by the holder of the certificate or designation, from the volume of groundwater which the director has determined under subsections (F), (G), (K), and (M) of this Section that the holder of the certificate or designation may withdraw from within the active management area and use consistent with the achievement of the management goal of the active management area. The director shall determine that the use of a holder of a certificate or a designation is not consistent with the management goal of the active management area if the holder of the certificate or the designation has used more groundwater withdrawn from within the active management area than the volume which the director has determined the holder may use consistent with the achievement of the management goal for the active management area.

**S.** To determine compliance with the consistency with management goal requirement established in this rule for the Pinal Active Management Area:

1. The director shall maintain an account updated annually of the groundwater supply and demand status for each holder of a certificate of assured water supply and each holder of a designation of assured water supply. After the director calculates under subsection (H) of this Section the volume of groundwater which the holder of the certificate or designation may withdraw within the active management area and use for a calendar year consistent with the management goal of the active management area, the director shall determine compliance with this Section by determining the volume of groundwater withdrawn from within the active management area which is used by the applicant during the calendar year.
2. The director shall determine that the holder of a certificate or designation is not consistent with the management goal of the active management area if the holder of the certificate or the designation has used more groundwater withdrawn within the active management area during the calendar year than the maximum annual allotment of groundwater which the director has determined the holder may use consistent with the achievement of the management goal for the active management area for the calendar year.
3. If the director determines that the holder of a certificate or designation uses less groundwater withdrawn from within the active management area in any calendar year than the maximum annual allotment of groundwater established for the holder for that calendar year, the director shall add to the next calendar year's groundwater allotment the amount calculated by subtracting the volume of groundwater used in the calendar year from the maximum groundwater allotment for the calendar year.

**T.** For a holder of a certificate or designation, the director, upon application, shall exclude the following volumes of groundwater withdrawn within the applicable active management area and used by the holder in determining under subsections (R) and (S) of this Section whether the holder's use continues to be consistent with the achievement of the management goal for the active management area:

1. If the director has determined that a surface water supply is physically available to the holder under R12-15-703 and the volume of the supply actually available to the holder during a calendar year is equal to or less than the drought volume for the supply, the volume of groundwater, other than the groundwater which is accounted for under subsections (R) or (S), withdrawn within the active management area which, when combined with the holder's available surface water supply, is equal to or less than the holder's drought volume.
2. The volume of groundwater withdrawn from within the active management area to which all of the following apply:
   a. The director has received a written determination from the director of the Arizona Department of Environmental Quality stating that the quality of the groundwater pumped or exchanged fails to meet state aquifer water quality standards, that the groundwater is a threat to future drinking water supplies, and that the removal and use of the contaminated groundwater is an appropriate remedial action.
   b. The groundwater pumped has either been treated or blended to achieve the water quality standards or exchanged for other water supplies which achieve such standards.
   c. The groundwater would not have otherwise been removed from the aquifer, or the withdrawal of the groundwater will accelerate the treatment of groundwater at a designated state or federal groundwater clean-up site.
   d. The groundwater was withdrawn prior to the end of calendar year 2025.
3. Any volume of groundwater withdrawn within a portion of an active management area which is exempt from conservation requirements pursuant to A.R.S. Title 45 due to waterlogging. The director shall review the application of this exclusion on a periodic basis not to exceed 15 years.

**U.** For the purpose of performing the calculations prescribed in this Section, the director shall evaluate an application for a designation of assured water supply filed by a city or town which is deemed to have an assured water supply under A.R.S. § 45-576(E) in the same manner as any other municipal provider.

**V.** An applicant for a dry lot subdivision comprised of 20 or fewer lots is exempt from the requirements of this Section.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-706. Assured Water Supply Requirement - Consistency with Management Plan**

**A.** The director shall approve an application for a certificate of assured water supply or a designation of assured water supply

only if the applicant's projected groundwater use is consistent with the management plan as determined at the date of application for the applicable active management area. The director shall determine that an applicant's projected groundwater use is consistent with the management plan only if the applicant submits a water supply plan which satisfies the requirements of this Section.

**B.** The director shall determine that a designation of AWS applicant which is providing water to customers as of the date of application satisfies the requirements of this Section if the director determines that either:
1. The applicant is in compliance with its applicable management plan requirements in the most recent calendar year for which data is available prior to the date of application; or
2. If the applicant has signed a stipulation and consent order which is in effect on the date of the application or which becomes effective during the time of review of the application to remedy non-compliance with the management plan requirements, that the applicant is in compliance with the terms of the stipulation and consent order.

**C.** The director shall determine that a designation of AWS applicant that has not commenced serving water to customers as of the date of application satisfies the requirements of this Section if the applicant submits a water supply plan which demonstrates to the director that compliance with management plan requirements will be achieved through the use of conservation or augmentation measures.

**D.** The director shall determine that a certificate applicant for a development of more than 50 lots satisfies the requirements of this Section if the applicant presents a water supply plan to the director indicating that compliance with management plan requirements will be achieved through the use of conservation or augmentation measures. The plan shall be specific enough to allow the director to calculate the water requirements per lot and for non-residential areas and common areas. The applicant shall also submit an analysis of the effect of the applicant's water use on the applicant's municipal provider's ability to comply with applicable management plan requirements.

**E.** The director shall determine that a certificate applicant that proposes to be served by a municipal provider which is not in compliance with its management plan requirements and has not signed a stipulation and consent order to remedy its non-compliance is consistent with the management plan only if the director determines that the certificate applicant's water supply plan is consistent with the proposed provider's applicable management plan requirements.

**F.** A certificate applicant for a development of 50 or fewer lots is exempt from the requirements of this rule.

**G.** The director may revoke the designation of a municipal provider if the provider's management plan requirements have been violated in two or more consecutive calendar years, and the provider either fails to amend its water supply plan in a manner which the director determines will rectify the non-compliance or fails to sign a stipulated agreement to remedy the violation.

**H.** If a designation of AWS applicant which is serving water on the date of application has a request for an administrative review of or variance from its management plan requirements pending on the date of application, the director shall not make a finding regarding compliance with this Section until the Director has issued a final decision and order on the request or the request has been settled.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-707. Assured Water Supply Requirement - Financial Capability**

**A.** The director shall approve an application for a certificate of assured water supply or a designation of assured water supply only if the applicant submits information from which the director determines that the applicant has the financial capability to construct the delivery system and any treatment and storage works required for the proposed use.

**B.** The director shall determine that an applicant for a certificate of assured water supply satisfies subsection (A) of this Section with respect to the construction of the requisite delivery system, if the director finds either:
1. That the applicable platting authority has determined that the applicant satisfies the platting authority's standards for financial capability to construct the requisite water utilities established pursuant to A.R.S. §§ 9-463.01(C)(8) or 11-806.01(G), and that the platting authority's standards ensure financial capability for assured water supply purposes,
2. That the applicant has constructed the requisite distribution works.

**C.** The director shall determine that an applicant for a certificate of assured water supply satisfies subsection (A) of this Section with respect to the construction of any necessary treatment or storage facility if the applicant either:
1. Has posted a performance bond for the entire cost of the treatment or storage facility, or
2. Has built the treatment or storage facility, or
3. The applicant is a member land of a multi-county water conservation district.

**D.** To make a finding under subsection (B)(1) of this Section, the director shall first determine that, except for the financial capability requirement established in this Section, the applicant for a certificate of assured water supply satisfies all requirements established for certificate applicants in this Article. Upon making this determination, the director shall issue a preliminary certificate of assured water supply to the applicant, conditioned upon the platting authority's approval of the applicant's financial capability. Upon receipt of evidence that the platting authority has determined that the applicant has sufficient financial capability to construct the requisite water utilities, and upon determining that the platting authority's determination ensures financial capability for assured water supply purposes, the director shall issue a final certificate of assured water supply to the applicant.

**E.** Except as provided in subsection (F) of this Section, the director shall determine that a municipal provider which is an applicant for a designation of assured water supply satisfies the requirement established in subsection (A) of this Section if the provider either:
1. Has constructed all necessary treatment works and storage facilities,
2. Has received approval from the Arizona Corporation Commission for the financing of the construction of the requisite treatment and storage facilities, or
3. Is a member service area of a multi-county water conservation district.

**F.** Where the applicant for a designation is a city or town, the director shall determine that the applicant satisfies the requirement established in subsection (A) of this Section if the director receives evidence that the city or town either:
1. Has built the requisite treatment and storage facilities,
2. Has adopted a five-year capital improvement plan which envisions the construction of the necessary facilities and the director receives a signed statement from the chief financial officer of the city or town certifying that

finances are available to implement that portion of the five-year plan pertaining to treatment and storage facilities, or

3. Is a member service area of a multi-county water conservation district.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R-12-15-708. Assured Water Supply Requirement - Ownership Interest; Change in Ownership**

**A.** A certificate of assured water supply or designation of assured water supply issued by the director shall be in the name of the owner of the development or municipal provider for which the application was filed.

**B.** A certificate of assured water supply may not be transferred from one owner of a development to a subsequent owner, but a subsequent owner may obtain a new certificate for the development if the subsequent owner satisfies the requirements of this Section.

**C.** If a person applies for a new certificate of assured water supply for a development and notifies the director in writing of the change in ownership of the development within 90 days after the change of ownership, the director shall issue the new certificate if the new owner of the development satisfies:

1. Financial capability requirements for the construction of the distribution, storage, and treatment facilities effective at the time the new owner of the development applies for the new certificate;
2. Any consistency with management goal requirements in effect at the time that the initial certificate was issued for the development;
3. The water quality requirements in effect at the time the new owner of the development applies for the new certificate;
4. The physical availability requirements in effect at the time that the initial certificate was issued for the development, except that, where the water supply proposed is a supply other than groundwater, the new owner of the development must satisfy the requirements in effect at the time that the new owner applies for the new certificate; and
5. The consistency with management plan requirements in effect at the time that the new owner of the development applies for the new certificate.

**D.** If the new owner of a development fails to notify the director within 90 days of obtaining ownership of the development, an application for a certificate for the development shall be reviewed under requirements in effect at the time the new owner files its application.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-709. Assured Water Supply Requirement - Review; Modification; Revocation; Prohibition on Transfer of Ground water Allocation**

**A.** The director may review a certificate of assured water supply and may review or modify a designation of assured water supply at any time for good cause and may revoke a certificate or designation when an assured water supply no longer exists. Good cause shall include a merger, division of the holder of a designation of assured water supply, or a change in ownership for the holder. A subsequent owner of a designated provider shall notify the Director within 90 days of the change in ownership. The director shall review a designation of assured water supply at least every 15 years following the issuance of the designation to determine whether the designation should be modified or revoked.

**B.** With respect to revocation, the standard of review for a certificate of assured water supply shall be the standards in place at the time that the original certificate was applied for. The standard of review for the modification or revocation of a designation of assured water supply shall be the standards in place at the time of review. For the purposes of this subsection, a failure by the holder to construct any requisite treatment facilities or storage works in a timely manner shall be deemed grounds for revocation.

**C.** The holder of a designation of assured water supply may request a modification of the designation at any time. The director shall modify a designation of assured water supply if the holder presents sufficient evidence that the holder has obtained additional water supplies which satisfy the requirements of this Article.

**D.** If the director determines that there is less water in a designated provider's account established in R12-15-703(F) than the amount required for a 100-year supply for current and committed demands and projected demand for the next two calendar years, the director shall notify the designated provider and initiate a review of the designated provider's status.

**E.** The Director shall not revoke a certificate of assured water supply if any of the residential lots associated within the plat have been sold.

**F.** If a designated provider commences service to a development for which a certificate of assured water supply had been issued, the Director shall not transfer any groundwater allocated pursuant to R12-15-705 from the holder of the certificate to the holder of the designation.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-710. Assured Water Supply Requirement - Notice; Objection; Hearing; Issuance of Designation of Assured Water Supply; Revocation of Certificate or Designation of Assured Water Supply; Review**

**A.** The procedure for issuing a designation of assured water supply, including the procedure for notice, objection, hearing, issuance, and appeal shall be the same as the procedure established for a certificate of assured water supply in A.R.S. § 45-578. Any procedural requirement shall be undertaken in the active management area where the municipal provider serves its customers.

**B.** If the director determines that a certificate of assured water supply or a designation of assured water supply should be revoked, the director shall provide for notice, a hearing, and a review process as established in Article 2 of this Chapter.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-711. Assured Water Supply Requirement - Annual Reports**

Upon obtaining a designation of assured water supply, a municipal provider shall include in its annual report required pursuant to A.R.S. § 45-632 the following information for the preceding calendar year:

1. The estimated future demand of platted, undeveloped lots which are located in the provider's service area.
2. The projected volume of water demand at build-out of customers with which the provider has entered into a notice of intent to serve agreement in the calendar year.
3. A report regarding the provider's compliance with water quality requirements.

4. The depth-to-static water level of all wells from which the provider withdrew water during the calendar year.
5. Any other information required to determine whether to continue a provider's designated status which is requested by the director.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-712. Assured Water Supply Requirement - Unplatted Development Plan; Analysis of Assured Water Supply**

**A.** The director shall issue a certificate of assured water supply only to a development consisting of subdivided land.

**B.** The director may evaluate an unplatted development plan consisting of land which is not subdivided for the purpose of determining whether the development is likely to satisfy requirements established by this Article after the development is platted and divided into subdivided land.

**C.** A developer proposing to develop land which is part of an unplatted development plan may request the evaluation described in subsection (B) of this Section by submitting to the director an application for an analysis of assured water supply.

**D.** After determining that the information supplied in the application is complete, the director shall review the application and issue an analysis of assured water supply. If the director determines from evidence submitted in the application that the applicant would presently satisfy one or more of the assured water supply requirements in this Article if the development were comprised of platted, subdivided land, the director shall include a statement to such effect in the analysis of assured water supply.

**E.** If the director includes within an analysis of assured water supply a determination regarding the physical availability of water for the projected 15 year groundwater demand as calculated from the projected date of application, the director shall include the determination in any calculation of the 100-year, depth-to-static water level as prescribed in R12-15-703 for certificate and designation of AWS applicants.

**F.** If a developer proposes to subdivide a development for which an analysis of assured water supply has been issued under subsection (D) of this Section into platted, subdivided lands, the director shall presume that those requirements indicated in the analysis as being satisfied remain satisfied unless a change in the evidence supporting the director's determination has occurred since the application for the analysis was submitted. If a developer receives a certificate of assured water supply based in whole or in part on an analysis, the certificate shall incorporate any conditions established in the analysis.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-713. Assured Water Supply Requirement - State Land Department / General Plan, Development Plan, Secondary Plan**

**A.** The director shall not issue a certificate of assured water supply for land determined by the commissioner of the Arizona State Land Department to be urban land requiring a general plan, development plan, or secondary plan in accordance with A.R.S. §§ 37-332 and 37-334. A certificate of assured water supply shall be required of a subsequent purchaser only if the purchaser intends to plat and subdivide the land.

**B.** To obtain a determination that state urban land for which a state general plan has been prepared in accordance with A.R.S. § 37-332 has the quality and quantity of water needed for development, the commissioner shall apply to the director for a survey of available water supplies. The application shall include portions of the information required in R12-15-702 as required by the director. The survey of available water supplies shall contain a description of the location of the land, a description of all water supplies which may be available for use on the state urban land, an estimate of the volume of each water source which may be available for use on the state urban land, a projection of the demand of the proposed use, and a description of whether each water source satisfies existing state water quality standards.

**C.** To obtain a determination of whether a development or secondary plan prepared for state urban land in accordance with A.R.S. § 37-334 provides for the delivery of an assured water supply, the commissioner shall apply for an analysis of assured water supply pursuant to the applicable provisions of R12-15-712. In the commissioner's application, the commissioner shall propose a conceptual development for the state urban land. If the director determines that an assured water supply would exist for the conceptual development proposed by the commissioner in accordance with the commissioner's development or secondary plan, the director shall issue an analysis of assured water supply to the commissioner. The director's determination shall constitute a finding that the requirements of A.R.S. § 37-334 have been satisfied.

**D.** If the director issues an analysis of assured water supply pursuant to subsection (C) of this Section, and a subsequent purchaser for the state land described in the analysis proposes to construct a development which satisfies the standards established in the analysis, upon application for a certificate of assured water supply, the purchaser shall receive a certificate of assured water supply without further review of the development's water use. If the development does not satisfy the standards established in the analysis, the purchaser's application for a certificate of assured water supply shall receive full review from the director.

**E.** If the commissioner of the State Land Department provides adequate evidence that a subsequent purchaser of state urban land will be provided water by a designated provider, the State Land Department shall be presumed to have met the applicable requirements of A.R.S. §§ 37-332 and 37-334 and shall be exempt from the provisions of this Section.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-714. Assured Water Supply Requirement - Fees**

**A.** With respect to an application listed in subsection (B) of this Section, the director shall only accept or take action on the application upon payment of the appropriate fee as listed below. Payment may be made by cash, check, or by entry in an existing department fee credit account established pursuant to R12-15-152.

**B.** The following application fees shall be paid:

| APPLICATION | FEE ($) |
|---|---|
| 1. Certificate of Assured Water Supply | 250.00 up to 20 lots; each additional lot is 0.50; maximum of 1,000.00; subtract 20% of the original fee if consistency with goal determination unnecessary; subtract 20% of the original fee if physical availability and water quality determination unnecessary |
| 2. Designation of Assured Water Supply | 500.00, up to 500 acre-feet demand in the calendar year prior to the date of application; add 0.50 for each acre-foot between 500 and 1,000; add 0.25 for each acre-foot above 1,000, up to a maximum of 10,000.00; subtract 20% of the original fee if consistency with goal determination unnecessary; subtract 20% of the original fee if physical availability and water quality determination unnecessary |
| 3. Designation of Assured Water Supply Modification | 500.00 |
| 4. Analysis of Assured Water Supply | 1,000.00 |
| 5. Physical Availability Demonstration - Undesignated Provider | 1,000.00 |
| 6. Physical Availability Demonstration - Certificate of Assured Water Supply Applicant | 1,000.00 |
| 7. Survey of Available Water Supplies | 500.00 |

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-715. Definitions - Adequate Water Supply Program**
In addition to any word or phrase defined or incorporated by reference in R12-15-701, the following words and phrases in R12-15-716 through R12-15-725 shall have the following meanings, unless the context otherwise requires:

1. "AADWS applicant" means an applicant for an analysis of adequate water supply.
2. "Adequacy water report applicant" means an applicant for a water report or the applicant's proposed municipal provider.
3. "Analysis of adequate water supply" means an instrument prepared by the director in accordance with R12-15-723.
4. "Designated provider" means a municipal provider which has obtained a designation of adequate water supply.
5. "Designation of ADWS applicant" means a person applying for a designation of adequacy.
6. "Designation of adequate water supply" means a decision and order issued by the director designating a municipal provider as having an adequate water supply pursuant to A.R.S. § 45-108 and this Article.
7. "Water report" means a report prepared by the director pursuant to A.R.S. § 45-108 describing the adequacy of the water supply for a development.

**Historical Head**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-716. Adequate Water Supply Requirement - Application for Water Report; Application for Designation of Adequate Water Supply; Application for Analysis of Adequate Water Supply**

**A.** A person applying for a water report, a designation of adequate water supply, or an analysis of adequate water supply shall provide the following information on a form prescribed by the director:

1. For an application for a water report or an analysis of adequate water supply:
   a. Name, telephone number, and address of the water report applicant or AADWS applicant. The applicant must be the owner of the subdivision for which the application is filed. If the holder of an ownership interest in the proposed development is a person other than an individual, such as a corporation, partnership, or trust, a statement naming the type of legal entity and listing the interest and extent of such interest of each principal in the entity. For purposes of this subsection (A)(1)(a), "principal" means any person or entity having a 10% or more financial interest in the development or, if the legal entity is a trust, each beneficiary of the trust holding a 10% or more beneficial interest in the development;
   b. Name of the proposed development;
   c. Name, address, and telephone number of the municipal provider proposed to serve the development and the applicant's technical consultant;
   d. Number of lots or housing units projected to be located within the proposed development;
   e. A copy of the proposed development's plat which will be submitted to the city, town, or county for approval or unplatted development plan, and a map of the proposed development which indicates the location of the proposed water distribution system and treatment works and the proposed development's geographical coordinates;
   f. Total acreage of and size of lots in the proposed development;
   g. The anticipated schedule for the proposed development to reach build-out and an annual projection of water demand until build-out;
   h. Proposed water uses of the proposed development;
   i. Projected annual water demand per lot or housing unit within the proposed development at build-out for the following categories, and a schedule for completion of facilities associated with each category:
      i. Single family housing units,
      ii. Multifamily housing units,
      iii. Non-residential uses,
      iv. Other uses which impact the projected annual water demand;

j. Information required to project annual lost and unaccounted for water associated with the proposed development;
k. Projected average number of persons per household for the proposed development for the following categories:
   i. Single family housing units,
   ii. Multifamily housing units;
l. Method of distributing water to the proposed development;
m. A study indicating that the adequacy water report applicant's or AADWS applicant's proposed sources of water meet the requirements established in R12-15-717 and R12-15-718. If wells proposed to provide water to the development are located within one mile of a Water Quality Assurance Revolving Fund or Superfund site, or if the water supply does not currently satisfy aquifer water quality standards, the study shall include:
   i. An identification of groundwater, if any, that does not meet state aquifer water quality standards within or adjacent to the wells proposed to provide water to the development;
   ii. An analysis of the possible migration of groundwater that does not meet state aquifer water quality standards which may result from the proposed use;
n. A copy of a notice of intent to serve agreement entered into between the owner of the proposed development and a municipal provider which is proposed to serve the proposed development;
o. A copy of any agreement for the delivery of specific sources of water to the proposed development;
p. Evidence, consistent with the requirements established in R12-15-717, of any legal right to use the proposed sources of water for the proposed development;
q. If the municipal provider proposed to serve the proposed development is a private water company, evidence of the proposed municipal provider's certificate of convenience and necessity as approved by the Arizona Corporation Commission;
r. A drought response plan, if required under R12-15-717.

2. For an application for a designation of adequate water supply, as applicable:
   a. Name of the designation of ADWS applicant. The applicant must be the owner of the municipal provider. If the holder of any ownership interest in the applicant is a person other than an individual, city, or town such as a corporation, partnership, or trust, a statement naming the type of legal entity and listing the interest and the extent of such interest of each principal in the entity;
   b. Address and telephone number of the designation of ADWS applicant and contact person;
   c. A copy of the designation of ADWS applicant's current service area map which includes the designation of ADWS applicant's current and proposed distribution system, treatment works, and storage facilities to be analyzed by the director in determining continuous availability under R12-15-703(C), and the designation of ADWS applicant's geographical coordinates;
   d. The designation of ADWS applicant's population projection for each calendar year for 20 calendar years from the date of application;
   e. An analysis of current and committed demands for the designation of ADWS applicant;
   f. Information required to project annual lost and unaccounted for water associated with the activities of the designation of ADWS applicant;
   g. Projected average number of persons per household for housing units for developments being served and proposed to be served by the designation of ADWS applicant for the following categories:
      i. Single family housing units,
      ii. Multifamily housing units;
   h. A study indicating that the designation of ADWS applicant's proposed sources of water meet the requirements established in R12-15-717 and R12-15-718. If wells proposed to serve the designation of ADWS applicant's service area are located within one mile of a Water Quality Assurance Revolving Fund or Superfund site, or if the water supply does not currently satisfy aquifer water quality standards, the study shall include:
      i. An identification of groundwater, if any, that does not meet state aquifer water quality standards within or adjacent to the wells proposed to serve the service area;
      ii. An analysis of the possible migration of groundwater that does not meet state aquifer water quality standards which may result from the proposed use;
   i. Evidence, consistent with the requirements established in R12-15-717, of the designation of ADWS applicant's legal right to use the proposed sources of water;
   j. If the designation of ADWS applicant is a private water company, evidence of the applicant's certificate of convenience and necessity approved by the Arizona Corporation Commission;
   k. A drought response plan, if required under R12-15-717.
3. Any other information prescribed by the director which is necessary to make a determination of whether an adequate water supply exists for the applicant.
4. A sworn statement avowing that the information contained in the application is true and correct to the best knowledge of the adequacy water report applicant, AADWS applicant, or designation of ADWS applicant.

**B.** An application for a water report, a designation of adequate water supply or an analysis of adequate water supply shall be signed by:
1. The individual owner if the proposed development or private water company is owned by a sole proprietor; or
2. An authorized corporate officer, partner, or trustee if the proposed development or private water company is owned by a corporation, partnership, or trust. If the application is submitted on behalf of a corporation, the application must also include a resolution enacted by the corporation which evidences that the person signing the application is so authorized by the corporation; or
3. A city or town manager or a person in an equivalent position if the applicant is a city or town. The application shall also include a resolution of the governing body of the city or town authorizing the city or town manager to sign the application.

**C.** A person applying for a physical availability demonstration shall submit evidence as prescribed in subsection (A) of this Section which is required by the director to determine the physical availability under R12-15-717(B) and quality of the proposed source of water under R12-15-718. After analyzing this information, the director shall provide the applicant a written determination of the proposed source of water's physical availability and quality. The demonstration may be used by any person as evidence of the physical availability and quality of those water sources described in the demonstration.

**D.** Subject to the provisions of subsection (E) of this Section, the priority date of an application for a water report, designation of adequate water supply, or analysis of adequate water supply shall be the date that a complete and correct application is filed with the Director. In the case of two or more pending, conflicting applications for a water report, designation of adequate water supply, or analysis of adequate water supply which the director determines to be complete and correct, priority shall be given to the application with the earliest priority date.

**E.** An application which the director determines to be complete and correct for a development for which a water report has previously been issued, or for which a plat was recorded prior to May 1, 1973, shall have priority among pending, conflicting applications according to the date on which the prior water report was issued, or the date on which the prior plat had been recorded prior to June 12, 1980, provided that:

1. If the development has never been determined to have an adequate or inadequate water supply, the plat which is referenced in the application has not been substantially modified since the plat was recorded.
2. If the development has previously been issued a water report, the plat referenced in the application has not been substantially modified since the water report was issued.

**Historical Note**

Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-717. Adequate Water Supply Requirement-Physical Availability**

**A.** The director shall approve an application for a water report or designation of adequate water supply only if the director determines that the adequacy water report applicant or designation of ADWS applicant will have sufficient supplies of groundwater, surface water, or effluent which are physically available as determined under subsection (B) of this Section, continuously available as determined under subsection (C) of this Section, and legally available under subsection (D) of this Section.

**B.** The director shall determine whether the applicant will have a sufficient supply of water which will be physically available to satisfy the applicant's 100-year projected water demand, if the applicant is an adequacy water report applicant, or will exceed the applicant's current and committed demands for 100 years, if the applicant is a designation of ADWS applicant, in accordance with the following:

1. If the proposed source is groundwater:
   a. The director shall determine the volume of ground water which will be available for the proposed use:
      i. If the applicant is a designation of ADWS applicant, from wells owned by the applicant which are located within the applicant's service area as indicated on the current service area map on the date of application and from proposed wells which the director determines are likely to be constructed for future uses by the designation of ADWS applicant within the applicant's service area.
      ii. If the applicant is an adequacy water report applicant which will be served by a central distribution system, from wells which will serve the proposed development which are located within the proposed municipal provider's service area or wells which the director determines are likely to be constructed for future uses within the service area of the proposed municipal provider.
      iii. If the applicant is an adequacy report applicant which will not be served by a central distribution system, from wells which the director determines are likely to be constructed on individual lots.
   b. In determining the quantity of groundwater available from each well for 100 calendar years, the applicant shall submit a hydrologic study using a method of analysis approved by the director which accurately describes the hydrology of the affected area.
   c. The director shall consider groundwater to be physically available only if the groundwater is to be withdrawn from depths not to exceed the following 100-year, depth-to-static, water level criteria:

| | Location of withdrawal / type of development | Maximum 100-year, depth-to-static water level |
|---|---|---|
| i. | For areas outside of active management areas/developments other than dry lot developments | 1200 feet below land surface |
| ii. | For areas outside of active management areas/dry lot developments | 400 feet below land surface |
| iii. | For areas outside of active management areas/dry lot developments comprised of lots with an area between 36 and 160 acres | 1200 feet below land surface |
| iv. | For areas inside of active management areas / developments comprised of lots with an area between 36 and 160 acres | 1000 feet below land surface |

   d. The director shall determine the 100-year depth-to-static water level by adding:
      i. The depth-to-static water level present on the date of application for the area from which groundwater withdrawals are proposed.
      ii. The projected declines caused by existing demand, using the projected decline in the 100-year, depth-to-static water level for the area from which groundwater withdrawals are proposed to occur during the 100-year period after the date of application, calculated using records of declines for the maximum period of time for which records are available up to 25 calendar years prior to the date of application. If evi-

dence is provided to the director of likely changes in pumpage patterns and aquifer conditions as opposed to those patterns and conditions occur ring historically, the director may determine projected declines using a model rather than evidence of past declines.

iii. The projected decline in the depth-to-static water level for the area from which groundwater withdrawals are proposed to occur during the 100-year period after the date of application, calculated by adding the projected groundwater demand of items in subsections (B)(1)(d)(iii)(1) and subtracting the projected demand of item in subsection (B)(1)(d)(iii)(3):
(1) Committed demand.
(2) Other lots within developments for which the director has issued an analysis of adequate water supply pursuant to R12-15-723.
(3) The projected demand of subdivided lots whose plats have been abandoned.

iv. The projected decline in depth-to-static water level for the area from which groundwater withdrawals are proposed which the director projects will result from the applicant's proposed use over a 100-year period.

e. The director may lower the 100-year, depth-to-static water level requirement specified in subsection (B)(1)(c), if the director determines that groundwater is available at the lower depth and the applicant demonstrates the financial capability to obtain the groundwater.

2. If the proposed source of water is surface water, other than Central Arizona Project water or Colorado River water:
a. The director shall determine the quantity of water annually available for the proposed use taking into consideration the priority date of the right or claim by calculating 120% of the firm yield of the proposed source from the point of diversion as limited by the capacity of the diversion works; except that, if the applicant demonstrates that it will use an alternative source of water which is physically available during times of shortage in the proposed surface water supply, the director shall determine the quantity of water annually available for the proposed use by calculating 100% of the median flow of the proposed source at the point of diversion as limited by the capacity of the diversion works.
b. The director shall determine the firm yield or median flow as follows:
i. By calculating the firm yield or median flow at the point of diversion on the basis of a minimum of 20 calendar years of flow records from the point of diversion unless 20 calendar years of records are unavailable and the director deter mines that a shorter period of record provides information necessary to determine the firm yield or median flow; or
ii. By calculating the firm yield or median flow at the point of diversion using a hydrologic model which projects the firm yield or median flow taking into account a minimum of 20 calendar years of historic river flows, changes in reservoir storage facilities, and projected changes in water demand. The yield available to any applicant may be composed of rights to stored water, direct diversion, or normal flow rights. If the permit for the water right was issued less than five years prior to the date of application, the director shall require the applicant to submit evidence in accordance with this subsection (B)(2)(b)(ii).

3. If the proposed source of water is Central Arizona Project water:
a. If an applicant has a non-declining, long-term municipal and industrial subcontract for Central Arizona Project water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water established in the subcontract.
b. If an applicant has a lease for Indian priority Central Arizona Project water, the director shall calculate the annual quantity of water available for the proposed use by calculating 100% of the annual amount of water established in the lease.
c. If an applicant has a subcontract for Central Arizona Project water other than a non-declining, long-term, municipal and industrial subcontract or a lease for Indian priority Central Arizona Project water, and the applicant demonstrates a backup supply of water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water established in the subcontract. The backup supply of water may be established with approval of the director by one or more of the following:
i. A drought response plan;
ii. Recharge credits;
iii. Evidence of other backup supplies which are physically, continuously, and legally available.
d. If the applicant does not submit evidence of sufficient backup supplies, the director shall determine the annual availability of the Central Arizona Project water supply by establishing a percentage of the annual amount established in the subcontract which the director determines to reasonably reflect the reliability of the applicant's Central Arizona Project water supply.

4. If the proposed source of water is Colorado River water:
a. And the priority of the contract provides reliability equal to or better than Central Arizona Project municipal and industrial water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100% of the annual amount of water established in the contract.
b. And the contract provides reliability which is less than Central Arizona Project municipal and industrial water, and the applicant demonstrates a backup supply of water, the director shall calculate the quantity of water annually available for the proposed use by calculating 100 percent of the annual amount of water set forth in the contract. The backup supply of water may be established by one or more of the following:
i. A drought response plan;
ii. Recharge credits;
iii. Evidence of other backup supplies which are physically, continuously, and legally available.
c. If the applicant does not submit evidence of sufficient backup supplies, the director shall determine the annual availability of the Colorado River water

supply by establishing a percentage of the annual amount established in the contract which the director determines to reasonably reflect the reliability of the applicant's Colorado River water supply.

5. If the proposed source of water is effluent which will be used directly:
   a. The director shall:
      i. Estimate the annual volume of effluent which will be available to the applicant by evaluating the current, metered production or the projected production of effluent.
      ii. Limit the annual volume of effluent calculated to be available under subsection (B)(5)(a)(i) to the applicant's projected annual demand for the direct use of the effluent.
   b. The applicant's proposed effluent use shall be in accordance with any water quality requirements established by the Arizona Department of Environmental Quality.
6. If the proposed source of water is water to be recovered from a storage project:
   a. The director shall calculate the volume of water which will be available for 100 years as represented by credits for stored water existing on the date of application in a manner consistent with the provisions of A.R.S. Title 45, Chapter 3, Articles 1 and 3.
   b. If the applicant proposes to use credits for stored water which do not exist at the date of application, the director shall evaluate the following in determining whether to include the proposed credits in calculating the volume of the applicant's proposed supplies:
      i. The terms of a contract to obtain water to store in a storage project.
      ii. The physical availability, continuous availability, and legal availability of the water proposed to be stored or the in lieu water, as applicable.
      iii. The presence of an existing storage project which will be available for use for the proposed storage.
      iv. The existence of all required permits of an adequate duration.
7. If an applicant proposes to recover stored water from outside the area of impact, sufficient water must exist for the withdrawals consistent with the depth limitations established in subsection (B)(1)(c).
8. If the source of water is to be obtained through a water exchange agreement, evidence that the source of water which will be used by the adequacy water report applicant or delivered to customers of a designation of ADWS applicant will be physically available in accordance with the terms of this subsection.

**C.** The director shall determine that an applicant has or will have a sufficient supply of water which will be continuously available if the applicant is an adequacy water report applicant which presents sufficient evidence that adequate delivery, storage, and treatment works will be in place in a timely manner to satisfy the 100-year projected water demand of the applicant or the applicant is a designation of ADWS applicant which presents sufficient evidence that adequate delivery, storage, and treatment works will be in place in a timely manner to exceed the applicant's current and committed demands for 100 years, and:

1. If the proposed source of water is groundwater to be withdrawn by a municipal provider, wells will be constructed in a timely manner within the municipal provider's service area which:
   a. Are of a capacity which exceeds the applicant's current and committed demands on a continuous basis for 100 years, if the applicant is a designation of ADWS applicant.
   b. Are of a capacity which satisfies the applicant's 100-year projected water demand, if the applicant is an adequacy water report applicant.
2. If the proposed source of water is surface water other than Central Arizona Project water or Colorado River water, the projected volume to be diverted from the source is perennial at the point of diversion, unless the director determines that a continuous supply will exist because of one or more of the following:
   a. Adequate storage facilities will be available to the applicant in a timely manner to store water for use when a volume of surface water is not available at the point of diversion to satisfy the applicant's water demands. For the purposes of this subsection (C)(2)(a) adequate storage facilities means:
      i. For a designation of ADWS applicant, facilities which can store enough water to exceed the applicant's current and committed demands for the duration of an anticipated shortage.
      ii. For an adequacy water report applicant, facilities which can store enough water to satisfy the applicant's 100-year projected water demand for the duration of an anticipated shortage.
   b. The applicant has presented evidence of supplies of other sources of water which the director has determined will be physically, continuously, and legally available to the applicant to supplement the applicant's proposed surface water supplies.
   c. The applicant will withdraw surface water from wells which are of a capacity:
      i. To exceed the current and committed demands of the applicant on a continuous basis for 100 years, if the applicant is a designation of ADWS applicant.
      ii. To satisfy the 100-year projected water demand of the applicant on a continuous basis if the applicant is an adequacy water report applicant.
   d. The applicant has submitted a drought response plan which the director has determined will conserve an equal volume of water to the volume of water which is subject to drought.
3. If the proposed source of water is Central Arizona Project water, the director determines that a continuous supply will exist because of one or more of the following:
   a. Adequate storage facilities will be available to the applicant in a timely manner to store water when a volume of Central Arizona Project water is not available to meet the applicant's water demands. For the purposes of this subsection (C)(3)(a), adequate storage facilities means:
      i. For a designation of ADWS applicant, facilities which can store enough water to exceed the applicant's current and committed demands for the duration of an anticipated shortage.
      ii. For an adequacy water report applicant, facilities which can store enough water to satisfy the applicant's 100-year projected water demand for the duration of an anticipated shortage.
   b. The applicant has presented evidence of supplies of other sources of water which the director has deter-

mined will be physically, continuously, and legally available to the applicant to supplement the proposed Central Arizona Project water supplies.

c. The applicant has submitted a drought response plan which the director has determined will conserve an equal volume of water to the volume of water which is subject to drought.

4. If the proposed source of water is Colorado River water, the director determines that a continuous supply will exist because of one or more of the following:
   a. Adequate storage facilities will be available to the applicant in a timely manner to store water when a volume of Colorado River water is not available to meet the applicant's water demands. For the purposes of this subsection (C)(4)(a), adequate storage facilities means:
      i. For a designation of ADWS applicant, facilities which can store enough water to exceed the applicant's current and committed demands for the duration of an anticipated shortage.
      ii. For an adequacy water report applicant, facilities which can store enough water to satisfy the applicant's 100-year projected water demand for the duration of an anticipated shortage.
   b. The applicant has presented evidence of supplies of other sources of water which the director has determined will be physically, continuously, and legally available to the applicant to supplement the proposed Colorado River water supplies.
   c. The applicant has submitted a drought response plan which the director has determined will conserve an equal volume of water to the volume of water which is subject to drought.
5. If the proposed source of water is effluent, the applicant presents evidence that:
   a. If the applicant is a designation of ADWS applicant, the applicant's ability to exceed the applicant's current and committed demands for 100 years which are to be satisfied with effluent will not be affected by fluctuations in the supply of effluent.
   b. If the applicant is an adequacy water report applicant, the applicant's ability to satisfy the applicant's 100-year projected water demand which is to be satisfied with effluent will not be affected by fluctuations in the supply of effluent.
6. If the applicant will obtain the proposed source of water through a water exchange agreement, evidence that the source of water which the applicant or the applicant's customers will use will be continuously available in accordance with the provisions of this subsection.

**D.** The director shall determine that an applicant will have sufficient supplies of water which will be legally available to the applicant to satisfy the applicant's 100-year projected water demand, if the applicant is an adequacy water report applicant, or will exceed the applicant's current and committed demands for 100 years, if the applicant is a designation of ADWS applicant, in accordance with the following:
1. If the proposed source of water is surface water, other than Central Arizona Project water or Colorado River water:
   a. The applicant shall submit the following evidence:
      i. Evidence that the applicant has a certificated surface water right, decreed water right, or a pre-1919 claim for the proposed source, or evidence that the applicant is not the holder of a water right but receives water pursuant to a water right which is appurtenant to the land which is the subject of the application, providing the water right may neither be legally withheld nor severed and transferred by the holder of the water right.
      ii. If the certificated surface water right or decreed water right pre-dates the date of application by at least five years, or the applicant submits a pre-1919 claim, evidence that the surface water supply has been used pursuant to the applicable water right or claim within the five years prior to the date of application, evidence that a court has determined that the right has not been abandoned, or evidence that the non-use would not have resulted in an abandonment of the right pursuant to A.R.S § 45-189.
   b. And the applicant presents evidence of a certificated surface water right, a decreed water right, or a pre-1919 claim, the director shall determine that the volume of water which is legally available pursuant to the applicant's water right or claim is equal to the face value of the right or claim. If the right or claim is subsequently adjudicated, the director shall determine the volume of water which is legally available based on the adjudicated amount of water.
2. If the proposed source of water is Central Arizona Project water, evidence that the applicant has entered into a subcontract with a multi-county water conservation district for the proposed volume of Central Arizona Project water. The director shall presume that a 50 year long-term, non-declining municipal and industrial subcontract is sufficient evidence of the legal availability to the applicant of the volume of Central Arizona Project water specified in the subcontract for 100 calendar years.
3. If the proposed supply of water is Colorado River water, evidence that the applicant has a contract with the United States Secretary of the Interior for the proposed supply.
4. If the proposed source of water is effluent, evidence that the applicant has the legal right to use, recapture, or reuse the effluent.
5. If the applicant will obtain the proposed source of water through a written contract other than a water exchange agreement, a contract between an adequacy water report applicant and the municipal provider proposed to serve the applicant, a contract with the United States Secretary of the Interior for Colorado River water, or a subcontract with a multi-county water conservation district, the director shall determine whether the proposed source of water is legally available to the applicant, the term of years for which the source is legally available, and the volume of water which is legally available as follows:
   a. The director shall determine that the proposed source of water is legally available to the applicant only if:
      i. The person providing the water under the contract has a legal right to the water in accordance with the terms of this subsection.
      ii. The director determines that the terms of the contract will ensure that the proposed source of water will be delivered to the applicant.
   b. The director shall determine the term of years for which the proposed source of water is legally available based on the term of years remaining in the contract.

c. The director shall determine the quantity of water legally available to the applicant based on the volume established in the contract.

6. If the applicant is an adequacy water report applicant, the applicant has submitted evidence indicating that the applicant has entered into a notice of intent to serve agreement signed by both the applicant and the municipal provider proposed to serve the applicant, which contains a statement of the municipal provider's intent to serve all of the proposed lots and uses that are subject to this determination of an adequate water supply.
7. If the applicant is an adequacy water report applicant, and the municipal provider proposed to serve the applicant is a city or town, the applicant has submitted evidence indicating that the applicant is located within the incorporated limits of the city or town or the applicant has submitted evidence of the legal right of the city or town to serve water to the applicant outside the city or town's incorporated limits.
8. If the applicant is an adequacy water report applicant, and the municipal provider proposed to serve the applicant is a private water company, the applicant has submitted evidence:
   a. Of the private water company's certificate of convenience and necessity approved by the Arizona Corporation Commission. The director shall only determine that the water provided by the private water company is legally available if the certificate of convenience and necessity is free of conditions which would likely result in the revocation of the certificate of convenience and necessity; and
   b. That the applicant is located within the certificated area or within any other area in which the Arizona Corporation Commission authorizes the private water company to serve water.
9. If the applicant is a private water company applying for a designation of adequate water supply, evidence that the applicant has a certificate of convenience and necessity approved by the Arizona Corporation Commission authorizing the proposed water use.
10. If the applicant will obtain the proposed source of water through a water exchange agreement, evidence that the applicant's water exchange agreement satisfies the requirements of A.R.S. Title 45.
11. If the director can only determine the proposed source of water to be physically available under this Section because of the use of storage facilities by the applicant, evidence of the applicant's legal right to store water in the facilities.

**E.** To determine compliance with the requirements established in subsections (B), (C), and (D) of this Section, the director shall maintain a record, updated annually, of the total water supply and demand status for each holder of a water report and designation of adequate water supply.

**F.** The director shall make an initial determination that an adequacy water report applicant or a designation of ADWS applicant satisfies the requirements established in subsections (B), (C), and (D) of this Section if the director determines that:
1. For an adequacy water report applicant, the volume of the applicant's proposed supply of water which the director determines to be physically, continuously, and legally available in accordance with the provisions of this Section is equal to or exceeds the volume of the applicant's 100-year projected water demand.
2. For a designation of ADWS applicant, the volume of the applicant's proposed supply of water which the director determines to be physically, continuously, and legally available in accordance with the provisions of this Section exceeds the volume of the applicant's current and committed demands for 100 years.

**G.** To determine the volume of the supply of surface water and effluent which is physically, continuously, and legally available for an applicable period of years, the director will multiply the number of years in that period by the annual volume of those sources of water which the director determines to satisfy the requirements of this Section.

**H.** After the director calculates the volume of water, from any source, which a holder of the designation of adequate water supply has proven to satisfy the requirements of this Section, the director shall annually subtract from the volume attributed to groundwater and credits for stored water the volume of groundwater and credits for stored water which the holder of the designation uses each calendar year.

**I.** For a holder of a designation whose designation has been modified under R12-15-720 that calendar year, the director shall add any additional volume of water, from any source, which the director determines is physically, continuously, and legally available for the proposed use.

**J.** The director shall determine that a holder of a designation is no longer in compliance with the requirements established in this Section if the holder of the designation no longer has a physically, continuously, and legally available volume of water, from any source which exceeds the holder's current and committed demands for 100 years.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-718. Adequate Water Supply Requirement-Water Quality**

**A.** The director shall approve an application for a water report or designation of adequate water supply only if the applicant submits information from which the director determines that the applicant's proposed water sources will satisfy existing state water quality requirements and any other water quality standards which are effective on the date of application and which are applicable to the proposed water use after any required treatment.

**B.** In making the determination described in subsection (A) of this Section, the director may consider expected changes in the quality of the proposed sources of water, including the migration of poor quality groundwater.

**C.** The director shall establish as a condition for a designation of adequate water supply that the municipal provider shall satisfy any state water quality requirements established for the applicant's proposed use after the date of designation. If the municipal provider fails to satisfy this condition, the director may terminate the designation of adequate water supply after consultation with the director of the Arizona Department of Environmental Quality.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-719. Adequate Water Supply Requirement - Ownership Interest**

A designation of adequate water supply issued by the director shall be in the name of the owner of the municipal provider for which the application was filed. Any water report provided to the Arizona Department of Real Estate shall be in the name of the owner of the development for which the application is filed.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-720. Adequate Water Supply Requirement - Review; Modification; Revocation**

**A.** The director may review or modify a designation of adequate water supply at any time for good cause and may revoke a designation when an adequate water supply no longer exists. Good cause shall include a merger, division of the holder of a designation of adequate water supply, or a change in ownership of the holder. A subsequent owner of a designated provider shall notify the Director within 90 days of the change in ownership. The director shall review a designation of adequate water supply at least five years following the effective date of this Article to determine whether the designation should be modified or revoked. After the initial review, the director shall review the designated provider's status every 15 years. The standard of review for the modification or revocation shall be the standards in place at the time of the review. The director shall notify the holder of a designation of adequate water supply prior to reviewing the holder's designation.

**B.** The holder of a designation of adequate water supply may request a modification of the designation at any time. The director shall modify a designation of adequate water supply if the holder presents sufficient evidence that the holder has obtained additional water supplies which satisfy the requirements of this Article.

**C.** If the director determines that there is less water in a designated provider's account established in R12-15-717(E) than the amount required for a 100-year supply for current and committed demands and projected demands for the next two calendar years, the director shall notify the designated provider and initiate a review of the designated provider's status.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-721. Adequate Water Supply Requirement - Notice; Objection; Hearing; Issuance of Designation of Adequate Water Supply; Revocation of Designation of Adequate Water Supply; Review**

**A.** The director may require notice and a hearing prior to approving or rejecting an application for a water report or a designation of adequate water supply. If the director determines that notice and a hearing should be held, the procedure for notice, objection, hearing, issuance, and appeal shall be the same as that established for a certificate of assured water supply in A.R.S. § 45-578. Any procedural requirement shall be performed in the county where the development is proposed to be located or where the municipal provider serves its customers.

**B.** The grounds for objection are limited to whether the water report application or the designation of adequate water supply application satisfy the criteria for determining an adequate water supply as set forth in this Article.

**C.** If the director determines that a designation of adequate water supply should be revoked, the director shall provide for notice, a hearing, and a review process as established in Article 2 of this Chapter.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-722. Adequate Water Supply Requirement - Annual Reports**

Beginning the calendar year following the issuance of a designation of adequate water supply or, if a provider is designated on the effective date of this Article, beginning the calendar year three years subsequent to the effective date of this Article, a municipal provider shall submit to the director by March 31 of each calendar year thereafter an annual report for the preceding calendar year describing the information prescribed in R12-15-711 of this Article. In addition to this information, the provider shall submit information concerning the volume of water from each source withdrawn, diverted, or received for delivery to its customers.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-723. Adequate Water Supply Requirement - Master Plan Communities and Unplatted Development Plans; Analysis of Adequate Water Supply**

**A.** The director shall issue a water report only to a development consisting of subdivided or unsubdivided land.

**B.** The director may evaluate an unplatted development plan consisting of land which is neither subdivided nor unsubdivided for the purpose of determining whether the development is likely to satisfy requirements established by this Article after the development is platted and divided into subdivided or unsubdivided land.

**C.** A developer proposing to develop land which is part of an unplatted development plan may request the evaluation described in subsection (B) of this Section by submitting to the director an application for an analysis of adequate water supply.

**D.** After determining that the information supplied in the application is complete, the director shall review the application and issue an analysis of adequate water supply. If the director determines from evidence submitted in the application that the applicant would presently satisfy one or more of the adequate water supply requirements of this Article if the development were comprised of platted, subdivided, or unsubdivided land, the director shall include a statement to such effect in the analysis of adequate water supply.

**E.** If the director includes within an analysis of adequate water supply a determination regarding the physical availability of water for the projected 15 year groundwater demand as calculated from the projected date of application, the director shall include the determination in any calculation of the 100-year, depth-to-static water level as prescribed in R12-15-717 for adequacy water report or designation of ADWS applicants.

**F.** If a developer proposes to divide a development for which an analysis of adequate water supply has been issued under subsection (D) of this Section into platted, subdivided, or unsubdivided lands, the director shall presume that those requirements indicated in the analysis as being satisfied remain satisfied unless a change in the evidence supporting the director's determination has occurred since the application for the analysis was submitted.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-724. Adequate Water Supply Requirement-State Land Department/General Plan, Development Plan, Secondary Plan**

**A.** The director shall not issue a water report for land determined by the commissioner of the Arizona State Land Department to be urban land requiring a general plan, development, or secondary plan in accordance with A.R.S. §§ 37-332 and 37-334. A water report shall be required of a subsequent purchaser only if the purchaser intends to plat and subdivide the land.

**B.** To obtain a determination that state urban land for which a state general plan has been prepared in accordance with A.R.S. § 37-332 has the quality and quantity of water needed for development, the commissioner shall apply to the director for a survey of available water supplies. The application shall include portions of the information required in R12-15-716 as required by the director. The survey of available water supplies shall contain a description of the location of the land, a description of all water supplies which may be available for

use on the state urban land, an estimate of the volume of each water source which may be available for use on the state urban land, a projection of the demand of the proposed use, and a description of whether the water source satisfies existing state water quality standards.

**C.** To obtain a determination of whether a development or secondary plan prepared for state urban land in accordance with A.R.S. § 37-334 provides for the delivery of an adequate water supply, the commissioner shall apply for an analysis of adequate water supply pursuant to the applicable provisions of R12-15-723. In the commissioner's application, the commissioner shall propose a conceptual development for the state urban land. If the director determines that an adequate water supply would exist for the conceptual development proposed by the commissioner in accordance with the commissioner's development or secondary plan, the director shall issue an analysis of adequate water supply to the commissioner. The director's determination shall constitute a finding that the requirements of A.R.S. § 37-334 have been satisfied.

**D.** If the director issues an analysis of adequate water supply pursuant to subsection (C) of this Section, and a subsequent purchaser for the state land described in the analysis proposes to construct a development which satisfies the standards established in the analysis, upon application for a water report, the purchaser shall receive a report without further review of the development's water use. If the development does not satisfy the standards established in the analysis, the purchaser's application for a water report shall receive full review from the director.

**E.** If the commissioner of the State Land Department provides adequate evidence that a subsequent purchaser of state urban land will be provided water by a designated provider, the State Land Department shall be presumed to have met the applicable requirements of A.R.S. §§ 37-332 and 37-334 and shall be exempt from the provisions of this Section.

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

**R12-15-725. Adequate Water Supply Requirement - Fees**

**A.** With respect to an application listed in subsection (B) of this Section, the director shall only accept or take action on the application upon payment of the appropriate fee as listed below. Payment may be made by cash, check, or by entry in an existing department fee credit account established pursuant to R12-15-152.

**B.** The following application fees shall be paid:

| APPLICATION | FEE ($) |
|---|---|
| 1. Water Report | 200.00 up to 20 lots; each additional lot is 0.50; maximum of 800.00; subtract 20% of the original fee if physical availability and water quality determination unnecessary |
| 2. Designation of Adequacy | 400.00, up to 1,000 acre-feet of demand in the calendar year prior to the date of application; add 0.25 for each acre-foot above 1,000, maximum of 8,000.00; subtract 20% of the original fee if physical availability and water quality determination unnecessary |
| 3. Modification of Designation of Adequacy | 500.00 |
| 4. Analysis of Adequate Water Supply | 1,000.00 |
| 5. Physical Availability Demonstration - Undesignated Provider | 1,000.00 |
| 6. Physical Availability Demonstration - Water Report Applicant | 1,000.00 |
| 7. Survey of Available Water Supplies | 500.00 |

**Historical Note**
Adopted effective February 7, 1995 (Supp. 95-1).

## ARTICLE 8. WELL CONSTRUCTION AND LICENSING OF WELL DRILLERS

**R12-15-801. Definitions**

In addition to the definitions set forth in A.R.S. §§ 45-101, 45-402, and 45-591 and in R12-15-202, the following words and phrases in this Article shall have the following meanings, unless the context otherwise requires:

1. "Annular space" means the space between the outer well casing and the borehole wall. An annular space also means the space between an inner well casing and outer well casing.
2. "Aquifer" means an underground formation capable of yielding or transmitting usable quantities of water.
3. "Artesian aquifer" means an aquifer which is overlain by a confining formation and which contains groundwater under sufficient pressure for the water to rise above the top of the aquifer.
4. "Artesian well" means a well that penetrates an artesian aquifer.
5. "Bentonite" means a colloidal clay composed mainly of sodium montmorillonite, a hydrated aluminum silicate.
6. "Cap" means a tamper-resistant, watertight steel plate of at least one-quarter inch thickness on the top of all inside and outside casings of a well.
7. "Casing" means the tubing or pipe installed in the borehole during or after drilling to support the sides of the well and prevent caving.
8. "Confining formation" means the relatively impermeable geologic unit immediately overlying an artesian aquifer.
9. "Consolidated formation" means a naturally occurring geologic unit through or into which a well is drilled, having a composition, density, and thickness which will provide a natural hydrologic barrier.
10. "Department" means the Arizona Department of Water Resources.

11. "Director" means the Director of the Arizona Department of Water Resources.
12. "Drilling card" means a card which is issued by the Director to the well drilling contractor or single well licensee designated in the notice of intent or permit, authorizing the well drilling contractor or licensee to drill the specific well or wells in the specific location as noticed or permitted.
13. "Exploration well" means a well drilled in search of geophysical, mineralogical or geotechnical data.
14. "Flowing artesian well" means an artesian well in which the pressure is sufficient to cause the water to rise above the land surface.
15. "Grout" or "cement grout" means cement mixed with no more than 50 percent sand by volume, and containing no more than six gallons of water per 94 pound sack of cement.
16. "Mineralized water" means any groundwater containing over 3000 milligrams per liter (mg/l) of total dissolved solids or containing any of the following chemical constituents above the indicated concentrations:

| Constituent | Concentration (mg/l) |
|---|---|
| Arsenic | 0.05 |
| Barium | 1.0 |
| Cadmium | 0.01 |
| Chromium (total) | 0.05 |
| Fluoride | 4.0 |
| Lead | 0.05 |
| Mercury | 0.002 |
| Nitrate (as N) | 10.0 |
| Selenium | 0.01 |
| Silver | 0.05 |

17. "Monitor well" means a well designed and drilled for the purpose of monitoring water quality within a specific depth interval.
18. "Open well" means a well which is not equipped with either a cap or a pump.
19. "Perforations" means a series of openings in a casing, made either before or after installation of the casing, to permit the entrance of water into the well.
20. "Piezometer well" means a well that is designed and drilled for the purpose of monitoring water levels within a specific depth interval.
21 "Pitless adaptor" means a commercially manufactured watertight unit or device designed for attachment to a steel well casing which permits discharge from the well below the land surface and allows access into the well casing while preventing contaminants from entering the well.
22. "Polluted water" means water whose chemical, physical, biological, or radiological integrity has been degraded through the artificial or natural infusion of chemicals, radionuclides, heat, biological organisms, or mineralogical or other extraneous matter.
23. "Pressure grouting" means a process by which a grout is confined within the borehole or casing of a well by the use of retaining plugs, packers, or a displacing fluid by which sufficient pressure is applied to drive the grout into and within the annular space or interval to be grouted.
24. "Qualifying party" means a partner, officer, or employee of a well drilling contractor, who has significant supervisory responsibilities and who has been designated to take the licensing examination for that well drilling contractor.
25. "Single well license" means a license issued to a person which allows the drilling or modification of a single exempt well on land owned by that person.
26 "Vadose zone well" means a well constructed in the interval between the land surface and the top of the static water level.
27. "Vault" means a tamper-resistant watertight structure used to complete a well below the land surface.
28. "Well abandonment" means the modification of the structure of a well by filling or sealing the borehole so that water may not be withdrawn or obtained from the well.
29. "Well drilling" means the construction or repair of a well, or the modification, except for abandonment, of a well, regardless of whether compensation is involved, including any deepening or additional perforating, any addition of casing or change to existing casing construction, and any other change in well construction not normally associated with well maintenance, pump replacement, or pump repair.
30. "Well drilling contractor" means an individual, public or private corporation, partnership, firm, association, or any other public or private organization or enterprise that holds a well driller's license pursuant to A.R.S. § 45-595(B).

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-802. Scope of Article**

This Article shall apply to man-made openings in the earth through which water may be withdrawn or obtained from beneath the surface of the earth, including all water wells, monitor wells and piezometer wells. It shall also apply to geothermal wells to the extent provided by A.R.S. § 45-591.01, and all exploration wells and grounding or cathodic protection holes greater than 100 feet in depth. However, this Article shall not apply to the following:

1. Man-made openings in the earth not commonly considered to be wells, such as construction and mining blast holes, underground mines and mine shafts, open pit mines, tunnels, septic tank systems, caissons, basements, and natural gas storage cavities.
2. Injection wells and vadose zone wells which are subject to regulation by the Arizona Department of Environmental Quality.
3. Oil, gas, and helium wells drilled pursuant to the provisions of A.R.S. Title 27.
4. Drilled boreholes in the earth less than 100 feet in depth which are made for purposes other than withdrawing or encountering groundwater, such as exploration wells and grounding or cathodic protection holes; except that in the event that groundwater is encountered in the drilling of a borehole, this Article shall apply.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-803. Well drilling and abandonment requirements; licensing and supervision requirements**

**A.** A person shall not drill or abandon a well, or cause a well to be drilled or abandoned, in a manner which is not in compliance with A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder.

**B.** A person, other than a single well licensee or a bona fide employee of a well drilling contractor, shall not engage in well drilling or abandonment without first securing a well drilling license in accordance with R12-15-804, R12-15-805 and R12-15-806.

**C.** A qualifying party of a well drilling contractor shall provide direct and personal supervision of the contractor's employees

to ensure that all wells are constructed and abandoned in accordance with this Article.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2) Section 12-15-803 amended and the text of former Section R12-15-804 renumbered to subsections (B) and (C) and amended effective June 18, 1990 (Supp. 90-2).

**R12-15-804. Application for well drilling license**

**A.** An applicant for a well drilling license shall submit a verified application of a form prescribed and furnished by the Director which contains the following information:
1. A designation of the classification of license sought by the applicant.
2. If the applicant is an individual, the individual's name, address and telephone number.
3. If the applicant is a partnership, the names, addresses, and telephone numbers of all partners, with a designation of any limited partners.
4. If the applicant is a corporation, association or other organization, the names, addresses and telephone numbers of the directors and of the president, vice president, secretary and treasurer, or the names, addresses and telephone numbers of the functional equivalent of such officers.
5. The address or location of the applicant's place of business, the mailing address if it is different from the applicant's place of business, and if applicant is a corporation, the state in which it is incorporated.
6. The name, address and telephone number of each qualifying party, the qualifying party's relationship to the applicant, and a detailed history of each qualifying party's supervisory responsibilities and well drilling experience, including previous employers, job descriptions, duties and types of equipment utilized.
7. The names, addresses and telephone numbers of three persons not members of each qualifying party's immediate family, who can attest to each qualifying party's good character and reputation, experience in well drilling, and qualifications for licensing.
8. Such additional information relevant to the applicant's or qualifying party's experience and qualifications in well drilling as the Director may require.

**B.** An applicant shall notify the Director in writing of any change in the information contained in the application within 30 days after such change.

**C.** The Director shall not issue a license under this Article if the applicant or a qualifying party lacks good character and reputation.

**D.** Prior to the issuance of a license, a qualifying party shall demonstrate three years of experience, dealing specifically with the type of drilling for which the applicant is applying for a license. This experience requirement may be reduced if the Director finds that the qualifying party has clearly and convincingly demonstrated a high degree of understanding and knowledge of well drilling techniques for the type of drilling for which the applicant is applying for a license. In no case, however, shall the practical experience requirement be less than two years.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Former Section R12-15-804 renumbered to R12-15-803(B) and (C), new Section R12-15-804 adopted effective June 18, 1990 (Supp. 90-2).

**R12-15-805. Examination for well drilling license**

**A.** The Director shall offer an examination for a well drilling license no less than six times yearly. The examination shall be administered to those eligible applicants whose applications were submitted at least 20 days prior to the date of the examination. The examination shall consist of a section on legal requirements, a section on general knowledge and one or more of six specialized sections. The section on legal requirements shall test the qualifying party's knowledge of A.R.S. Title 45, Chapter 2, Article 10, and the rules adopted thereunder. The section on general knowledge shall test the qualifying party's knowledge of general hydrologic concepts, principles, and practices in the well construction industry, and shall test knowledge of groundwater protection, pollution, water quality and public health effects. The specialized sections shall test the qualifying party's knowledge in the following classifications:
1. Cable tool drilling in rock and unconsolidated material.
2. Air rotary drilling in rock and unconsolidated material.
3. Mud rotary drilling in rock and unconsolidated material.
4. Reverse rotary drilling in rock and unconsolidated material.
5. Jetting and driving wells in unconsolidated material.
6. Boring and augering in unconsolidated material.

**B.** Only the qualifying party, department personnel, and persons having the express permission of the Director shall be permitted in the examination room while the examination is in progress. The qualifying party shall not bring books or notes into the examination room, or communicate by any means whatsoever while the examination is in progress without the express permission of the presiding examiner. The qualifying party shall not leave the examination room while the examination is in progress without first obtaining the permission of the presiding examiner. The Director may disqualify an applicant for violation of this subsection.

**C.** To obtain a well drilling license, a qualifying party of the applicant shall pass the section on legal requirements, the section on general knowledge, and one or more specialized sections. Each section of the examination shall be graded separately. The passing grade on each section shall be 70 percent.

**D.** No person may take the examination more than twice during any 12 months.

**E.** The Director may exempt a qualifying party from taking the section on general knowledge, and one or more of the specialized sections, if the qualifying party provides proof of passing an equivalent examination given by the National Water Well Association.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Section repealed, new Section adopted effective June 18, 1990 (Supp. 90-2).

**R12-15-806. License fee; issuance and term of licenses; renewal; display of license**

**A.** The fee for a well driller's license shall be fifty dollars. No additional fee shall be charged for amendments to licenses pursuant to subsection (B).

**B.** Upon submittal of the license fee and satisfactory completion of an examination, the Director shall issue the applicant a well drilling license. The license shall be numbered and shall state the specialized classifications of drilling activities for which the applicant is qualified and licensed. The applicant shall be licensed in only those classifications for which the qualifying party has passed the specialized sections of the examination. If the qualifying party subsequently passes other specialized sections, the applicant's license shall be amended.

**C.** A well drilling contractor shall notify the Director in writing within 30 days of the date on which the well drilling contractor no longer has a qualifying party for one or more of its specialized drilling classifications. Upon such notification, the Director may revoke or suspend part or all of the well drilling license of the well drilling contractor and require a new qualifying party to take and pass the examination.

**D.** A well drilling license shall expire each year on June 30th, unless renewed pursuant to subsection (E).

**E.** A person may renew a well drilling license by submitting an application for renewal on forms prescribed and furnished by the Director. The renewal fee shall be ten dollars. If the application and renewal fee are postmarked on or before June 30, the well drilling contractor may operate as a licensee until actual issuance of the renewal license. A license which has expired may be reactivated and renewed within one year of its expiration by filing the required application and 20 dollars. If a license has been expired for one or more years for failure to renew, the well drilling contractor shall apply for a new license and repeat the examination.

**F.** A well drilling contractor shall prominently display the well drilling license number on all well drilling rigs owned or operated by the contractor in this state. Good quality paint or commercial decal numbers shall be used in placing each identification number on the drilling rig. The license number shall not be inscribed in crayon, chalk, pencil, or other temporary markings.

**Historical Note**
Adopted effective March 5. 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-807. Single well license**

**A.** An applicant for a single well license pursuant to A.R.S. § 45-595(D) shall submit a verified application on forms prescribed and furnished by the Director, which shall include:
1. The name and address of the applicant.
2. The location of the well and whether the applicant owns the land.
3. The type of drill rig to be used and the owner of the rig.
4. The proposed design of the well or method of abandonment.
5. The names of any people who will be assisting the applicant in the drilling or abandonment of the well, and whether the applicant will compensate them for their efforts.
6. The applicant's experience, if any, in well drilling or abandonment.
7. Such other information as the Director may require relevant to the applicant's experience and qualifications in well drilling or abandonment.

**B.** The Director shall offer the single well examination no less than six times yearly and shall administer the examination to those eligible applicants whose applications were submitted at least 20 days prior to the date of the examination.

**C.** The single well examination shall be of a form prescribed and furnished by the Director and shall test the applicant's knowledge of abandonment techniques, or those minimum well construction requirements and drilling techniques applicable to the proposed design of the well. The passing grade on the sections of the examination dealing with construction requirements and drilling techniques, respectively, shall be 70 percent.

**D.** Rule R12-15-805 relating to testing procedures shall be fully applicable.

**E.** Applicants who twice fail the examination shall wait a minimum of 90 days before re-testing.

**F.** Upon passing the examination, the applicant shall be issued a single well license, authorizing the applicant to drill or abandon one exempt well at the location specified in the application. The license shall be valid for a period of one year from issuance.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-808. Revocation of license**

The Director may revoke, suspend, or place on probationary status a well drilling license issued pursuant to R12-15-806, or a single well license, for good cause, including:
1. Intentionally making a misstatement of fact on any filing with the Department.
2. Violating any provision of A.R.S. Title 45, Chapter 2, Article 10, and the rules promulgated thereunder, or aiding and abetting in such a violation.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2). Section number corrected (Supp. 93-1).

**R12-15-809. Notice of intention to drill**

A notice of intention to drill required to be filed pursuant to A.R.S. § 45-596 shall be signed by the owner or lessee of the property upon which the well is to be drilled.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2).

**R12-15-810. Authorization to drill**

**A.** The Director shall, upon mailing a duplicate copy of the notice of intention to drill as provided in A.R.S. § 45-596(D), mail a drilling card to the designated well drilling contractor or single well licensee.

**B.** A well drilling contractor or single well licensee may commence drilling a well only if the well drilling contractor or licensee has possession of a drilling card at the well site issued by the Director in the name of the well drilling contractor or licensee, authorizing the drilling of the specific well in the specific location.

**C.** In extraordinary situations not requiring a permit but only a notice of intention to drill, the Director may grant a request by telephone for emergency authorization of commencement of drilling prior to the actual receipt by the well driller of the drilling card. Within seventy-two hours after such a request is granted, the well driller shall file a written statement indicating the nature and reasons for the request, and the date, time and Department employee granting the request, and the well owner shall file a notice of intent to drill is such a notice has not previously been filed.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-811. Minimum well construction requirements**

**A.** Well casing
1. Casing shall be of a sufficient strength and wall thickness to hold the borehole open and survive any necessary grouting. A person shall use only steel or thermoplastic casing in the construction of a well, unless the person has received a variance from the Director pursuant to R12-15-820. The well casing or an extension of the casing shall extend a minimum of one foot above ground level. When installing a pitless adaptor, the casing may be terminated below ground level for aesthetic reasons or

freeze protection purposes. Casing made of, or which has been exposed to, hazardous or potentially harmful materials, such as asbestos, shall not be used.

2. All well casing joints or overlaps shall be made watertight to prevent the degradation of the water supply by the migration of inferior quality water. Except as provided in subsection (H) of this rule, any openings in the casing that will be above the water level in the well, such as bar holes, cracks or perforations, shall be completely plugged or sealed.
3. Thermoplastic casing shall be installed only in an over sized drillhole without driving. Thermoplastic casing shall conform with American Society for Testing and Materials Standard Specification F480-89 (1989), which is incorporated herein by reference and is on file with the Office of the Secretary of State. Rivets or screws used in the casing joints shall not penetrate the inside of the casing.
4. Steel casing shall be new or in like-new condition, free from pits or breaks, and shall conform with American Society for Testing and Materials Standard Specification A53-89a (1989), A139-89b (1989) or A312/A312M-89a (1989), whichever is applicable, all of which are incorporated herein by reference and are on file with the Office of the Secretary of State.
5. Copies of The American Society for Testing and Materials standard specifications referred to in paragraphs (3) and (4) above may be obtained with these rules at the Office of the Secretary of State of the State of Arizona, State Capitol, West Wing, Phoenix, Arizona 85007; from the Department of Water Resources, Operations Division, 15 South 15th Avenue, Phoenix, AZ 85007; and from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. This rule does not include any later amendments or editions of those standard specifications.

**B.** Surface seal

1. Except as provided in paragraphs (2) and (4) of this subsection, and R12-15-817(B)(1), all wells shall be constructed with a surface seal as herein provided. The seal shall consist of steel casing, one foot of which shall extend above ground level, and cement grout placed in one continuous application from the bottom of the zone to be grouted to the land surface. If a pitless adaptor is utilized, the cement grout may terminate at the bottom of the pitless adaptor. The minimum length of the steel casing shall be 20 feet. The minimum annular space between the casing and the borehole for placement of grout shall be one and one-half inches. Curing additives, such as calcium chloride, shall not exceed ten percent of the total volume of grout. Bentonite as an additive shall not exceed five percent of the total volume. The minimum length of the surface seal shall be 20 feet. Any annular space between the outer casing and an inner casing shall be completely sealed to prevent contamination of the well.
2. All hand-dug wells shall be constructed with a watertight curbing extending, at a minimum, from one foot above the natural ground level to the static water level, or into the confining formation if the aquifer is artesian. The curbing shall consist of poured cement grout or casing surrounded by cement grout. Concrete block with cement grout and rock with cement grout may also be used. The poured cement grout shall not be less than six inches thick. If casing is to be used, the minimum annular space between the casing and the borehole shall be three inches. Hand-dug wells shall be sealed at the surface with a watertight, tamper-resistant cover to prevent contaminants from entering the well.
3. All wells constructed by jetting or driving shall have cement grout placed in the annular space to a minimum depth of six feet. The minimum annular space between the casing and the borehole for placement of the grout shall be one and one-half inches.
4. All horizontal wells, to prevent leakage, shall be constructed with a surface seal consisting of steel casing and cement grout extending a minimum of ten feet into the land surface.

**C.** Access port. Every well with casing four inches in diameter or larger shall be equipped with a functional watertight access port with a minimum diameter of one-half inch so that the water level or pressure head in the well can be monitored at all times.

**D.** Gravel packed wells

1. If a gravel pack has been installed, the annular space between the outer casing and the inner casing shall be sealed, either by welding a cap at the top or by filling with cement grout from the bottom of the outer casing to the surface.
2. If a gravel tube is installed, it shall be sealed with a cap.

**E.** Vents. All vents installed in the well casing shall open downward and be screened to prevent the entrance of foreign material.

**F.** Removal of drilling materials

1. In constructing a water well, the well driller shall take all reasonable precautions to protect the producing aquifer from contamination by drilling materials. Upon completion of the well, the well driller shall remove all foreign substances and materials introduced into the aquifer or aquifers during well construction. For purposes of this subsection, "substances and materials" means all drilling fluids, filter cake, lost circulation materials, and any other organic or inorganic substances.
2. Materials known to present a health hazard, such as chrome-based mud thinners, asbestos products, and petroleum-based fluids, shall not be used as construction, seal or fill materials or drilling fluids.
3. Drilling fluids and cuttings shall be contained in a manner which prevents discharge into any surface water.

**G.** Repair of existing wells

1. If, in the repair of a well, the old casing is withdrawn, the well shall be recased in conformance with these rules.
2. If an inner casing is installed to prevent leakage of undesirable water into a well, the annular space between the casings shall be completely sealed by packers, casing swedging, pressure grouting or other methods which will prevent the movement of water between the casings.

**H.** Monitor wells

1. A monitor well may be screened up to ten feet above the highest seasonal static water level of record for the purpose of monitoring contaminants.
2. A monitor well shall be identified as such on the vault cover or at the top of the steel casing. Identification information shall include the well registration number.

**I.** Completion at the surface. In areas of traffic or public rights-of-way, wells may be constructed below the land surface in a vault. All other requirements in this Article shall apply.

**Historical Note**

Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2). The reference to R12-14-817(B)(1) in subsection (B)(1) corrected to read R12-15-817(B)(1) (Supp. 93-1).

**R12-15-812. Special aquifer conditions**

**A.** Artesian wells
1. The well casing shall extend into the confining formation immediately overlying the artesian aquifer and shall be grouted from a minimum of ten feet into the confining formation to the land surface to prevent surface leakage into and subsurface leakage from the artesian aquifer.
2. If leaks occur adjacent to the well or around the well casing, within 30 days the well shall be completed with the seals, packers, or casing and grouting necessary to eliminate such leakage or the well shall be abandoned according to R12-15-816.
3. If the well flows at land surface, the well shall be equipped with a control valve, or suitable alternative means of completely controlling the flow, which must be available for inspection at the well site at all times.

**B.** Mineralized or polluted water. In all water-bearing geologic units containing mineralized or polluted water as indicated by available data, the borehole shall be cased and grouted so that contamination of the overlying or underlying groundwater zones will not occur.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-813. Unattended wells**

All wells, when unattended during well drilling, shall be securely covered for safety purposes and to prevent the introduction of foreign substances into the well.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Section number corrected (Supp. 93-1).

**R12-15-814. Disinfection of wells**

All wells from which the water to be withdrawn is intended to be utilized for human consumption or culinary purposes without prior treatment shall be disinfected by the well drilling contractor before removing the drill rig from the well site in accordance with the requirements contained in Engineering Bulletin No. 8, "Disinfection of Water Systems", issued by the Arizona Department of Health Services in August 1978, and Engineering Bulletin No. 10, "Guidelines for the Construction of Water Systems", issued by the Arizona Department of Health Services in May 1978, both of which are incorporated herein by reference and are on file with the Office of the Secretary of State. Copies of the Engineering Bulletins referred to above may be obtained with these rules at the Office of the Secretary of State of the State of Arizona, State Capitol, West Wing, Phoenix, Arizona 85007, and from the Department of Water Resources, Operations Division, 15 South 15th Avenue, Phoenix, Arizona 85007. This rule does not include any later amendments or editions of those Bulletins.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-815. Removal of drill rig from well site**

The drilling rig shall not be removed from the well site unless the well is in one of the following conditions:
1. Constructed in full conformance with R12-15-811 and R12-15-812 and either sealed with a cap or equipped with a pump.
2. Abandoned in accordance with R12-15-816.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-816. Abandonment**

**A.** Well abandonment shall be performed only by a licensed well drilling contractor or single well licensee.

**B.** Except as provided in subsection (F) of this Section, the owner of a well shall file a notice of intent to abandon the well prior to abandonment, on a form prescribed and furnished by the Director, which shall include:
1. The name and mailing address of the person filing the notice.
2. The legal description of the land upon which the well proposed to be abandoned is located and the name and mailing address of the owner of the land.
3. The legal description of the location of the well on the land.
4. The depth, diameter and type of casing of the well.
5. The well registration number.
6. The materials and methods to be used to abandon the well.
7. When abandonment is to begin.
8. The name and well drilling license number of the well drilling contractor or single well licensee who is to abandon the well.
9. The reason for the abandonment.
10. Such other information as the Director may require.

**C.** The Director shall, upon receipt of a proper notice of intent to abandon, mail a well abandonment authorization card to the designated well drilling contractor or single well licensee.

**D.** Except as described in subsection (F) of this Section, a well drilling contractor or single well licensee may commence abandoning a well only if the driller has possession of an abandonment card at the well site, issued by the Director in the name of the driller, authorizing the abandonment of that specific well or wells in that specific location.

**E.** Within 30 days after a well is abandoned pursuant to this Section, the well drilling contractor or single well licensee shall file with the Director a Well Abandonment Completion Report on a form prescribed and furnished by the Director which shall include the date the abandonment of the well was completed and such other information as the Director may require.

**F.** In the course of drilling a new well, the well may be abandoned without first filing a notice of intent to abandon and without an abandonment card. If the well is abandoned pursuant to this subsection without first filing a notice of intent to abandon and without an abandonment card, the well drilling contractor or single well licensee shall provide the following information in the Well Abandonment Completion Report:
1. The legal description of the land upon which the well was abandoned and the name and mailing address of the owner of the land.
2. The legal description of the location of the well on the land.
3. The depth, diameter and type of casing of the well prior to abandonment.
4. The well registration number.
5. The materials and methods used to abandon the well.
6. The name and well drilling license number of the well drilling contractor or single well licensee who abandoned the well.
7. The date of completion of the abandonment of the well.
8. The reason for the abandonment.
9. Such other information as the Director may require.

**G.** The abandonment of a well shall be accomplished through filling or sealing the well so as to prevent the well, including the annular space outside the casing, from being a channel allowing the vertical movement of water.

**H.** A well not penetrating an aquifer shall include a surface seal which shall be accomplished as follows:
1. If the casing is removed from the top 20 feet of the well, a cement grout plug shall be set extending from two feet below the land surface to a minimum of twenty feet below the land surface, and the well shall be backfilled above the top of the cement grout plug to the original land surface.
2. If the casing is not removed from the top ten feet of the well, a cement grout plug shall be set extending from the top of the casing to a minimum of twenty feet below the land surface and the annular space outside the casing shall be filled with cement from the land surface to a minimum of twenty feet below the land surface.

**I.** In addition to the surface seal required in subsection (H):
1. A well penetrating a single aquifer system with no vertical flow components shall be filled with cement grout, concrete, bentonite drilling muds, clean sand with bentonite, or cuttings from the well.
2. A well penetrating a single or multiple aquifer system with vertical flow components shall be sealed with cement grout or a column of bentonite drilling mud of sufficient volume, density, and viscosity to prevent fluid communication between aquifers.

**J.** Materials containing organic or toxic matter shall not be used in the abandonment of a well.

**K.** The owner or operator of the well shall notify the Director in writing no later than 30 days after abandonment has been completed. The notification shall include the well owner's name, the location of the well, and the method of abandonment.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-817. Exploration wells**

**A.** Notification. Prior to drilling one or more exploration wells, the well owner, lessee, or exploration firm shall file a notice of intention to drill on forms provided by the Director. If the notice of intention to drill is filed for the project as a whole, the drilling card shall be issued for the project as a whole.

**B.** Construction and abandonment.
1. If an exploration well which is to be left open for re-entry at a later date encounters groundwater, it shall be cased and capped in accordance with R12-15-811, R12-15-812, and R12-15-822. The minimal length of surface seal shall be either 20 feet, or five feet into the first encountered consolidated formation, whichever is less. If no groundwater is encountered, the well shall be cased, grouted and capped in such a manner so as to prevent contamination of the well bore from the surface.
2. Exploration wells not left open for re-entry shall be abandoned in accordance with R12-15-816.

**C.** Completion report. Within 30 days of project completion, the well owner, lessee, or exploration firm shall submit a project completion report on forms provided by the Director. The report shall include:
1. The exact number of wells drilled.
2. The depth to water encountered or detected, with reference to specific wells.
3. The abandonment method utilized, or construction details if completed for re-entry.
4. Any other information which the Director may require.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-818. Well location**

Except for monitor wells and piezometer wells, no well shall be drilled within 100 feet of any septic tank system, sewage disposal area, landfill, hazardous waste facility, storage area of hazardous materials or petroleum storage areas and tanks, unless authorized in writing by the Director.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-819. Use of well as disposal site**

No well may be used as a storage or disposal site for sewage, toxic industrial waste, or other materials that may pollute the groundwater, except as authorized by the Arizona Department of Environmental Quality.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-820. Request for variance**

**A.** If extraordinary or unusual conditions exist, a well drilling contractor or owner may request a variance from the provisions of this Article.

**B.** The request for variance shall be in writing and shall set forth the location of the well site, the reasons for the request, and the recommended requirements to be applied. The Director may approve the request only if the well drilling contractor or owner has clearly demonstrated that the variance will not adversely affect other water users or the local aquifers.

**C.** A variance shall not be effective until the well drilling contractor or owner receives from the Director a written approval of the variance and a new drilling card stamped "variance issued."

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-821. Special requirements**

If the Director determines that the literal application of the minimum well construction requirements contained in this Article would not adequately protect the aquifer or other water users, the Director may require that further additional measures be taken, such as increasing the length of the surface seal or increasing the well's minimum distance from a potential source of contamination.

**Historical Note**
Adopted effective March 5, 1984 (Supp. 84-2). Amended effective June 18, 1990 (Supp. 90-2).

**R12-15-822. Capping of open wells**

**A.** The owner of an open well shall either install a cap on the well or abandon the well in accordance with R12-15-816. Within five days after capping the well, the owner of the well shall file with the Department a notice of well capping on a form approved by the Director which shall include the following information:
1. The name and address of the well owner.
2. The name and address of the person installing the cap.
3. The well registration number.
4. The legal description of the location of the well.
5. The date the well was capped.
6. The method of capping.
7. The type and diameter of casing.

**B.** If no casing exists in an open well, or if the integrity of the existing casing is insufficient to allow installation of a cap, the well owner shall install a surface seal in accordance with R12-15-811(B) prior to capping.

**D.** The owner of a well on which a cap is installed shall make the cap tamper resistant by welding the cap to the top of the casing by the electric arc method of welding, except that the owner of a well may make the cap tamper resistant by securing the cap to the top of the casing with a lock during temporary periods of well maintenance, modification or repair, not to exceed 30 days, or at any time if the well is a monitor well or piezometer well.

**Historical Note**
Adopted as an emergency effective March 2, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-1). Emergency expired. Readopted without change as an emergency effective June 2, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-2). Emergency expired. Readopted without change as an emergency effective September 5, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-3). Emergency expired. Readopted without change as an emergency effective December 1, 1989, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 89-4). Emergency expired. Readopted without change as an emergency effective March 23, 1990, pursuant to A.R.S. § 41-1026, valid for only 90 days (Supp. 90-1). Permanent rule adopted with changes effective June 18, 1990 (Supp. 90-2).

## ARTICLE 9. WATER MEASUREMENT

### R12-15-901. Definitions

In addition to the definitions set forth in A.R.S. §§ 45-101 and 45-402, the following words and phrases shall have the following meanings, unless the context otherwise requires:

1. "Approved measuring device" means an instrument, approved by the Director pursuant to R12-15-903 or R12-15-909(A) which measures the volume or flow rate of water withdrawn, delivered, received, transported, recharged, stored, recovered, or used, and which measurements, when used with an approved measuring method, allow for accurate computation of a volume of water.
2. "Approved measuring method" means a procedure, approved by the Director in R12-15-903 or R12-15-909(A), which, when used with an approved measuring device, will accurately calculate a volume of water.
3. "Flow rate" or "discharge" means the volume of water, including any sediment or other solids that may be dissolved or mixed with it, which passes through a particular reference section in a unit of time.
4. "Measured system" means a system through which water passes for the purposed of withdrawal, delivery, receipt, transportation, recharge, storage, replenishment, recovery or use.
5. "Responsible party" means an irrigation district or a person required by A.R.S. Title 45 or by a permit, rule, or order issued pursuant to A.R.S. Title 45, to use a measuring device or method approved by the Director.

**Historical Note**
Adopted effective December 27, 1982 (Supp. 82-6).
Amended effective June 15, 1995 (Supp. 95-2).

### R12-15-902. Installation of Approved Measuring Devices

**A.** A responsible party shall install an approved measuring device to monitor the volume of water withdrawn, delivered, transported, recharged, stored, replenished, recovered, and used.

**B.** A responsible party shall install and use a sufficient number of approved measuring devices to allow for the separate monitoring and reporting of the volume of water passing through the measured system pursuant to the following categories of rights:

1. Irrigation grandfathered rights,
2. Non-irrigation grandfathered rights,
3. Service area rights,
4. Groundwater withdrawal permits, and
5. Recovery well permits or water storage permits.

This subsection does not require separate measuring devices for rights within each category unless otherwise required by A.R.S. Title 45, a permit, rule, or order pursuant to that Title.

**C.** An approved measuring device which measures groundwater withdrawals shall be installed as closed to the wellhead as is practical, consistent with the manufacturer's instructions. An approved measuring device which measures another point in the measured system shall be installed as close as is practical to the point of delivery, receipt, transportation, recharge, storage, replenishment, recovery, or use which the device is intended to measure, consistent with the manufacturer's instructions.

**Historical Note**
Adopted effective December 27, 1982 (Supp. 82-6).
Amended effective June 15, 1995 (Supp. 95-2).

### R12-15-903. Approved Water Measuring Devices and Methods

**A.** Any measuring device is approved by the Director if it is installed, maintained, and used in accordance with the manufacturer's recommendations, and if it meets the accuracy requirements set forth in R12-15-905(A).

**B.** An approved measuring device shall be used with an approved measuring method set forth in R12-15-903(C) or an alternative measuring method approved by the Director as provided in R12-15-909(A).

**C.** The following water measuring methods are approved by the Director:

1. Totalizing measuring method: This method requires an approved measuring device which continuously records the volume of water passing through the measured system;
2. Electrical consumption measuring method: This method requires measurements of either pipeflow rates or open-channel flow rates used in combination with electrical energy records;
3. Natural gas consumption measuring method: This method requires measurements of either pipe flow rates or open channel flow rates used in combination with natural gas energy records;
4. Hour meter measuring method: This method requires measurements of either pipe flow rates or open-channel flow rates used in combination with hour meter readings;
5. Elapsed time of flow method: This method requires measurements of flow rates used in combination with elapsed time of the flow. This method may be used only by a responsible party who receives water from an open channel or by a person or entity who delivers water in an open channel to one or more grandfathered rightholders or permit holders, if it is not possible to use the electrical or gas consumption measurement methods or hour meter measuring method.

**Historical Note**
Adopted effective December 27, 1982 (Supp. 82-6).
Amended effective June 15, 1995 (Supp. 95-2).

**R12-15-904. Water Measuring Method Reporting Requirements**

**A.** A responsible party using one of the water measuring methods described in R12-15-903 shall file, with the annual report required by A.R.S. Title 45 and on a form prescribed by the Director, the following information, unless that information has not changed from that submitted in the annual report filed in the previous calendar year.
1. The approved measuring method used;
2. The type of approved measuring device used;
3. The make, model, and size of the approved measuring device used.

**B.** Except as provided in R12-15-904(B)(5) and R12-15-909(C), a responsible party shall file with the annual report the information required in subsection (A) of this Section and the following information on a form prescribed by the Director:
1. Totalizing measuring method:
   a. The initial totalizing meter reading for the reporting year taken prior to the first use of the measured system during the reporting year;
   b. The end totalizing meter reading for the year taken subsequently to the last use of the measured system during the reporting year;
   c. The units in which the water is measured;
   d. Whether the power meter serves uses other than the pump motor or engine;
   e. An estimate of the amount of any water passing through the measured system during measuring device malfunctions;
   f. If the well is in operation for more than a 30-day period, the results of a minimum of two flow-rate measurements per reporting year taken under normal system operating conditions. The responsible party shall not submit the results of the flow-rate measurements with the annual report unless a meter malfunction continues longer than 72 hours during the reporting year;
   g. The installation or overhaul date of the totalizing meter; and
   h. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
2. Electrical consumption measuring method:
   a. The results of a minimum of two flow-rate measurements per reporting year taken at least 30 days apart and under normal system operating conditions or, if the measured system is used during a single period of 30 days or less during the year, the result of one flow-rate measurement taken during that single period in that year under normal system operating conditions;
   b. The dates of the measurements;
   c. The discharges in gallons per minute;
   d. The time, in seconds, of ten cycles of the electric meter disk, power indicator pulse, or an alternative measurement, provided that the alternative means of measurement is approved in advance by the Director;
   e. The inside diameter of the discharge pipe;
   f. The multiplier ($K_r$) and disk constant ($K_h$) of the electric meter; and
   g. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
3. Natural gas consumption measuring method:
   a. The results of a minimum of two flow-rate measurements per reporting year taken at least 30 days apart and under normal system operating conditions or, if the measured system is used during a single period of 30 days or less during the year, the result of one flow-rate measurement taken during that single period in that year under normal system operating conditions;
   b. The dates of the measurements;
   c. The discharges in gallons per minute;
   d. The amounts of gas per second in cubic feet indicated by the gas meter;
   e. The billing factors (F);
   f. The inside diameter of the discharge pipe; and
   g. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
4. Hour meter measuring method:
   a. The results of a minimum of two flow-rate measurements per reporting year taken at least 30 days apart and under normal system operating conditions or, if the measured system is used during a single period of 30 days or less during the year, the result of one flow-rate measurement taken during that single period in that year under normal system operating conditions;
   b. The dates of the measurements;
   c. The discharges in gallons per minute;
   d. The initial hour meter reading for the reporting year taken prior to the first use of the measured system during the reporting year;
   e. The end hour meter reading taken subsequently to the last use of the measured system during the reporting year;
   f. Whether the energy meter serves uses other than the pump motor or engine;
   g. The installation or overhaul date of the hour meter; and
   h. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
5. Elapsed time of flow measuring method: A responsible party using this measuring method shall not be required to submit the following information with the annual report but instead shall record and retain it for three years after the reporting year.
   a. The responsible party or agent shall measure and record an initial flow rate taken at the start of flow for each delivery of water;
   b. If the flow rate continues for more than eight hours, a subsequent measured flow-rate measurement shall be taken. If any subsequently measured flow-rate differs by more than 10% from the initial flow rate, and the delivery is not adjusted to conform with the initial flow rate, the responsible party or agent shall record the subsequent flow rate;
   c. The time the flow begins and the time the flow ends for each delivery of water; and
   d. The dates of the measurements.

**C.** A responsible party or person or entity who uses an approved measuring method or an approved alternative water measurement method shall save the records required by subsections (A) and (B) of this Section for three years after the reporting year.

**Historical Note**
Adopted effective December 27, 1982 (Supp. 82-6). Former Section R12-15-904 renumbered to R12-15-905, new Section adopted effective June 15, 1995 (Supp. 95-2).

**R12-15-905. Accuracy of Approved Measuring Devices**

**A.** A responsible party shall install, maintain, and use an approved measuring device and method in a manner which will insure that its measurement error does not exceed 10% of the actual flow rate.

**B.** All measured systems shall be installed or constructed and thereafter maintained so as to allow the Director, using another measuring device, to check readily the accuracy of the measuring device utilized by the responsible party.

**Historical Note**
Adopted effective December 27, 1982 (Supp. 82-6). Former Section R12-15-905 renumbered to R15-15-906, new Section R12-15-905 renumbered from R12-15-904 and amended effective June 15, 1995 (Supp. 95-2).

**R12-15-906. Repair and Replacement of Approved Measuring Devices**

If an approved measuring device fails to perform its designated function for more than 72 hours, the responsible party shall notify the Director of the failure, in writing, within seven calendar days after the discovery of the failure of the device. The reason for such failure shall be stated, as well as the estimated date of return to service of the device. If the malfunction is discovered by the Director and the malfunction does not appear to be the result of an attempt to render the device inaccurate, the Director shall notify the responsible party of the malfunction. The responsible party shall return the measuring device to full service within 30 days of either original notice by the responsible party to the Director or by the Director to the responsible party, unless repair or replacement service or parts are not available. In such case, the responsible party shall notify the Director of the delay within seven days and the reasons for it. The responsible party shall take corrective action in such cases as soon as practical. In all cases, the responsible party shall notify the Director within seven days when the measuring device is returned to full service and shall submit on a form prescribed by the Director estimates of the volume of water, if any, passing through the measured system during the period the measuring device was out of service and a description of the method used to calculate the estimates.

**Historical Note**
Section R12-15-906 renumbered from R12-15-905 and amended effective June 15, 1995 (Supp. 95-2).

**R12-15-907. Calculation of Irrigation Water Deliveries**

If one or more irrigation grandfathered rights receive water by a common distribution system where water is measured with an approved device or method at the point of delivery to the common distribution system, but not at a point of delivery to each irrigation grandfathered right, each irrigation grandfathered rightholder or agent shall report the water used by either of the following methods:

1. Estimate the amount of water used based on a pro rata share of the acres irrigated, or
2. Estimate the amount of water used based on a combination of the pro rata share of the acres irrigated and the consumptive use of each crop grown.

**Historical Note**
Adopted effective June 15, 1995 (Supp. 95-2).

**R12-15-908. Measurement of Water by One Person on Behalf of Another**

A responsible party shall be liable for any fines, penalties, or other sanctions resulting from the installation, monitoring, use, or accuracy of any measuring device, method, or recordkeeping, notwithstanding that the installation, monitoring, use, or recordkeeping may have been done by an agent of the responsible party.

**Historical Note**
Adopted effective June 15, 1995 (Supp. 95-2).

**R12-15-909. Alternative Water Measuring Devices, Methods, and Reporting**

**A.** A responsible party may use an alternative water measuring device or method that differs from those described in R12-15-903 provided the device or method is approved in advance by the Director. The Director shall approve an alternative water measuring device or method if the device meets the requirements of R12-15-905. The Director may require from the responsible party such information as may be necessary to demonstrate that the alternative device or method meets the requirements of R12-15-905.

**B.** Responsible parties may substitute equivalent information for the information required on the annual report form or use reporting formats that differ from that required in R12-15-904, provided the substituted information or format is approved in advance by the Director.

**C.** Responsible parties may use estimation methods that differ from those described in R12-15-907 provided they are approved in advance by the Director.

**D.** A municipal provider is exempted from the reporting requirements under R12-15-904 and the provisions under R12-15-906 pertaining to notification to the Director of measuring device malfunctions regarding metered service connections, unless required to report by A.R.S. Title 45 or by a permit, rule, or order issued pursuant to A.R.S. Title 45.

**E.** Municipal providers and irrigation districts may notify the Director of measuring device malfunctions at the time of filing the annual report and in a manner that differs from the requirements of R12-15-906, provided the municipal provider or irrigation district implements a schedule of regular maintenance of measuring devices, repairs or replaces malfunctioning measuring devices within seven days of discovery of the malfunction, and the alternative notification is approved in advance by the Director.

**Historical Note**
Adopted effective June 15, 1995 (Supp. 95-2).

## ARTICLE 10. REPORTING REQUIREMENTS FOR ANNUAL REPORTS, ANNUAL ACCOUNTS, OPERATING FLEXIBILITY ACCOUNTS, AND CONVEYANCES OF GROUNDWATER RIGHTS

**R12-15-1001. Definitions**

In addition to the definitions set forth in A.R.S. §§ 45-101 and 45-402, the following words and phrases in this Article shall have the following meanings, unless the context otherwise requires:

1. "Annual account" means an accounting of water required to be filed pursuant to A.R.S. § 45-468.
2. "Annual report" means an annual report of water withdrawn, delivered, received, transported, recharged, stored, recovered or used as required by A.R.S. §§ 45-467, 45-632, 45-655, or 45-815.
3. "Central Arizona project water" means Colorado River water delivered through the facilities of the central Ari-

zona project, and surface water from any other source conserved and developed by dams and reservoirs in the central Arizona project and lawfully delivered by the United States or a multi-country conservation district.

4. "Decreed or appropriative surface water" means surface water which is delivered or used pursuant to a decreed or appropriative water right, except any such water which is included in central Arizona project water.
5. "Farm" means an area of irrigated land under the same ownership as defined in A.R.S. § 45-402(9), including the area of land described in a certificate of irrigation grandfathered right, as well as contiguous land which the owner is legally entitled to irrigate only with decreed or appropriative surface water.
6. "Maximum annual groundwater allotment" means the quantity of water in acre-feet obtained by multiplying the number of water duty acres for a farm by the current irrigation water duty for the farm unit.
7. "Normal flow" means water which is delivered or used pursuant to a right to appropriate an unstored, natural flow of surface water.
8. "Operating flexibility account" means an accounting of water use pursuant to an irrigation grandfathered right as provided in A.R.S. § 45-467.
9. "Responsible party" means a person who is required by law to file an annual account or annual report.
10. "Spill water" means surface water, other than Colorado River water, which is released from a storage facility into a surface water distribution system either through a spillway or to avoid using a spillway, and which is released:
    a. Pursuant to the dam operator's written criteria for releasing water to avoid spilling which have been approved in writing by the Director; or
    b. Because there is a risk, unacceptable to a reasonable person, that the storage capacity of the facility will be exceeded within the next 30 days because the facility is near capacity and either the inflow to the facility or the forecast runoff into the facility is equal to or greater than the quantity of water ordered from the facility; or
    c. Because there is a risk, unacceptable to a reasonable person, that the storage capacity of the facility will be exceeded more than 30 days in the future because the forecast runoff into the facility exceeds current unused storage capacity and projected water demand during the forecast period, provided that the Director has made a written finding before the release that the forecast is reasonable.
11. "Surface water right acre" means land to which the owner is legally entitled to apply decreed or appropriative surface water.
12. "Tailwater" means water which, after having been applied to a farm for irrigation purposes,
    a. Is subsequently used for the irrigation of a different farm, without having entered the distribution system of a city, town, private water company or irrigation district, or
    b. Is delivered to an irrigation district in accordance with R12-15-1010. Such water, once having entered the distribution system of the irrigation district, loses its characterization as tailwater.
13. "Water deliverer" means a city, town, private water company or irrigation district delivering a combination of groundwater and any other type of water for irrigation purposes.

**Historical Note**
Adopted effective December 27, 1982 (Supp. 82-6). Section R12-15-1001 renumbered to R12-15-1003, new Section R12-15-1001 adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1002. Form of annual account or annual report**

**A.** A person filing an annual account or an annual report shall do so on a form prescribed by the Director, unless the person has requested and received the Director's prior written approval to use an alternative form.

**B.** A person may file both an annual account and an annual report in one document. A person required to file an annual account shall designate in the annual account whether the annual account is being filed also as an annual report.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1003. Filing of annual reports/accuracy**

**A.** Each person required to file an annual report of groundwater withdrawals, transportation and use pursuant to A.R.S. § 45-632 shall file a report no later than March 31, 1985, for the period from January 1, 1984, through December 31, 1984. Subsequent annual reports shall be filed no later than March 31st of each year for the preceding calendar year.

**B.** A person shall not be found to be in violation of the reporting requirements of A.R.S. § 45-632 if the quantity of groundwater in fact withdrawn or used does not exceed the quantity measured, totalized, and reported by the person, by more than the following percentages, and the error is not the result of an intentional misrepresentation.

| | |
|---|---|
| From 7/1/1983 through 12/31/1989 | 15% |
| From 1/1/1990 through 12/31/1999 | 10% |
| From 1/1/2000 through 12/31/2009 | 8% |

**Historical Note**
Section R12-15-1003 renumbered from R12-15-1001 effective December 12, 1990 (Supp. 90-4).

**R12-15-1004. Filing of an annual report required by A.R.S. § 45-467 or 45-632 on behalf of the responsible party**

**A.** A responsible party shall liable for any fines, penalties or other sanctions resulting from or attributable to the filing or contents of an annual report required by A.R.S. §§ 45-467 or 45-632, notwithstanding that the annual report was filed for the responsible party by an irrigation district pursuant to A.R.S. § 45-632(D), or by another person in a form acceptable to the Director.

**B.** If a responsible party has not filed an annual report required by A.R.S. § 45-467 or 45-632 for a calendar year, and the Department receives an annual report for that calendar year purportedly filed on behalf of the responsible party by an irrigation district pursuant to A.R.S. § 45-632(D), or by another person in a form acceptable to the Director, there shall be a rebuttable presumption that the annual report was filed with the responsible party's knowledge, consent, and authorization.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1005. Management plan monitoring and reporting requirements**

A responsible party who is required by a provision of a management plan to comply with monitoring and reporting requirements shall comply with such requirements and shall include all such information in an annual account or annual report.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1006. Reporting requirements for holders of recovery well permits**

A person who holds a recovery well permit shall include in the annual report required by A.R.S. § 45-815(B), the following additional information:

1. The names of any persons, other than non-irrigation customers of cities, towns, private water companies and irrigation districts, to whom the recovered water was delivered during the year; the quantity of recovered water delivered to each such person; and the uses to which the recovered water was applied.
2. If the recovered and delivered water included commingled groundwater, decreed or appropriative surface water other than spill water, central Arizona project water, effluent or spill water, an estimate of the quantity of each type of water which was delivered to each person or put to a specific use.

**Historical Note**

Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1007. Reporting requirements for annual account**

A person required to file an annual account pursuant to A.R.S. § 45-468 shall account for water provided to the following classes of users:

1. Cities and towns,
2. Private water companies,
3. Irrigation districts,
4. Dairies,
5. Metal mining facilities,
6. Cattle feed lots,
7. Turf-related facilities,
8. Sand and gravel facilities,
9. Electrical power generation facilities,
10. Other industrial users.

**Historical Note**

Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1008. Information required to maintain an operating flexibility account**

**A.** A responsible party who withdraws, receives or uses groundwater during a calendar year pursuant to an irrigation grandfathered right shall include the following information for the calendar year in an annual report filed pursuant to A.R.S. § 45-467 or 45-632:

1. The quantity of groundwater withdrawn from each well;
2. The quantity of groundwater withdrawn and delivered to another person for irrigation purposes;
3. The quantity of groundwater received from a city, town, private water company or irrigation district;
4. The quantity of groundwater received from a person other than a city, town, private water company or irrigation district;
5. The quantity of effluent received;
6. The quantity of decreed or appropriative surface water received, other than normal flow and spill water;
7. The quantity of normal flow received;
8. The quantity of spill water received;
9. The quantity of tailwater used;
10. The quantity of tailwater delivered in accordance with the provisions of R12-15-1010(A), and the farm or irrigation district to which the tailwater was delivered;
11. The quantity of central Arizona project water received;
12. The quantity of any other surface water received which has not been accounted for pursuant to paragraphs (6) through (11) of this subsection;
13. The number of surface water right acres in the farm to which the irrigation grandfathered right is appurtenant;
14. The quantity of water used for the legal irrigation of acres in the farm to which irrigation grandfathered rights are not appurtenant, except that the responsible party may omit this information, and it shall be presumed that the total amount of water received or used for the irrigation of the farm was applied to acres to which irrigation grandfathered rights are appurtenant;
15. Such other information as the Director may reasonably require to accomplish the management goals of the applicable active management area.

**B.** A water deliverer shall include the following information for an accounting period in an annual account filed pursuant to A.R.S. § 45-458:

1. The quantity of groundwater delivered to each farm;
2. The quantity of normal flow delivered to each farm;
3. The quantity of spill water delivered to each farm;
4. The quantity of decreed or appropriative surface water, other than normal flow and spill water, delivered to each farm;
5. The quantity of central Arizona project water delivered to each farm;
6. The quantity of decreed or appropriative surface water, other than normal flow and spill water, delivered for use within the service area of the water deliverer, including all farm and non-farm deliveries;
7. The number of surface water right acres within the service area of the water deliverer;
8. Such other information as the Director may reasonably require to accomplish the purposes of A.R.S. § 45-468.

**Historical Note**

Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1009. Credits to operating flexibility account**

**A.** Except as provided in subsection (B) of this rule and in R12-15-1010, if the total amount of water from all sources used by a farm for irrigation purposes in a calendar year is less than the farm's maximum annual groundwater allotment for the year, the difference shall be registered as a credit to the farm's operating flexibility account.

**B.** If a farm is within the service area of a water deliverer, the credit as calculated pursuant to subsection (A) of this rule shall be reduced by an amount equal to the difference between the farm's pro rata share of the total quantity of decreed or appropriative surface water, other than normal flow or spill water, delivered by the water deliverer during the year for use within its service area, and the quantity of such water actually received by the farm during the year. The farms's pro rata share of such water shall be determined by dividing the number of surface water right acres in the farm that are within the service area of the water deliverer by the total number of surface water right acres within the service area of the water deliverer, and multiplying the quotient by the total amount of such water.

**Historical Note**

Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1010. Operating flexibility account; tailwater**

**A.** For purposes of calculating credits or debits to the operating flexibility account, the amount of tailwater delivered by a person to another farm or to an irrigation district for irrigation purposes during a calendar year shall not be considered as having been used for the irrigation of the farm on which the tailwater originated, provided and to the extent that:

1. The Director has approved, prior to January 1 of the calendar year in which the deliveries of tailwater take place, a written plan to measure and record the tailwater deliveries. The plan shall include:
   a. A totalizing water measuring device to be installed and used in such a manner as to enable a reporting of tailwater deliveries with no greater than a ten percent margin of error,
   b. The procedures by which accurate records of the tailwater deliveries will be kept.
   c. The manner in which the tailwater deliveries will be made, and
   d. The farm or irrigation district to which the tailwater will be delivered.
2. The person has measured, recorded, and delivered the tailwater in full accordance with the plan as approved pursuant to paragraph (1) of this subsection.
3. The tailwater was directly delivered to:
   a. A specified farm and was used for the legal irrigation of irrigation acres or surface water right acres on that farm, or
   b. A specified irrigation district and was used for the legal irrigation of irrigation acres or surface water right acres within that district.

**B.** A person who delivers tailwater in accordance with subsection (A) of this rule, and a person who directly receives and uses such tailwater pursuant to subsection (A)(3)(a) of this rule, shall account for the tailwater, for reporting purposes, as if it were comprised of a mixture of groundwater, decreed and appropriative surface water other than normal flow, central Arizona project water, spill water, other surface water, and effluent, as applicable, in the same proportions as such waters comprise the total amount of water other than normal flow received or withdrawn for irrigation use during the calendar year on the farm on which the tailwater originated.

**C.** A person who uses tailwater which has not been delivered and accounted for as provided in subsections (A) and (B) of this rule may credit against the person's use of groundwater in a calendar year the amount of such tailwater used during the calendar year if the use of such tailwater would cause a debit to be incurred. The credit shall be applied only against the person's operating flexibility account debits which otherwise would have been incurred that year and shall not be used to discharge debits from prior years or accumulate credits for future years. For purposes of calculating credits to the person's operating flexibility account, such tailwater shall be treated as groundwater, unless reported otherwise according to its source.

**D.** An irrigation district that receives tailwater pursuant to subsection (A)(3)(b) shall account for the water in the same manner as other water in the district's distribution system.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1011. Statement of operating flexibility account**

**A.** The operating flexibility account for each farm shall be established with a balance of zero on the first day of the first year in which the person entitled to use groundwater pursuant to the irrigation grandfathered right is required to comply with the first irrigation water duty established by the Director pursuant to A.R.S. Title 45, Chapter 2, Article 9.

**B.** The Director shall issue annually to the owner or user of an irrigation grandfathered right for which a current annual report has been filed a statement of the operating flexibility account setting forth the status of the operating flexibility account for the farm, based on the information submitted in the annual report.

**C.** Upon a motion or on the initiative of the Director, the Director may amend a statement of operating flexibility account at any time to correct clerical mistakes or to adjust the balance of the account based on information submitted in an amended or late annual report. The Director shall give written notice of any amendments made pursuant to this subsection to the person to whom the statement of operating flexibility account was issued.

**D.** A statement of operating flexibility account or an amendment to a statement of operating flexibility account may be appealed as provided by A.R.S. § 45-405.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1012. Rule of construction**

Nothing in A.A.C. R12-15-1001 through R12-15-1011 shall be construed to determine the legality of any water use for which an accounting is required under these rules.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1013. Retention of records for annual accounts and annual reports**

The responsible party shall keep and maintain, for at least three calendar years following the filing of an annual account or an annual report, all records which may be necessary to verify the information and data contained therein.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1014. Late filing or payment; extension and late payment of fees**

**A.** An annual account, an annual report, or a request for extension pursuant to subsection (E) of this rule shall be deemed to be filed at the time a complete annual account, a complete annual report or a request for extension is hand-delivered to any Department office, or at the time the envelope in which it is mailed is postmarked.

**B.** Except as provided in subsection (C) of this rule, groundwater withdrawal fees and stored water recovery fees shall be deemed to be paid at the time the fees are hand-delivered to any Department office, or at the time the envelope in which they are mailed is postmarked.

**C.** If any groundwater withdrawal fees or stored water recovery fees are not paid in cash in the first instance and the instrument by which they are paid is not honored and paid upon initial demand by the Department, the fees shall be deemed to be paid at the time the Department actually receives the fees in cash or the instrument by which they are paid is subsequently honored and paid to the Department.

**D.** If an annual account or an annual report which is filed on or before March 31 is found by the Director to be incomplete, the Director shall notify the responsible party of the inadequacies and give the responsible party 30 days to provide the missing information in a form prescribed by the Director. If the necessary information is not timely provided, late penalties as provided in A.R.S. §§ 45-632(K), 45-655(C), or 45-815(D) shall begin to accrue on the 31st day following the notice of inadequacy and the Director shall not recommend to a court, pursuant to A.R.S. §§ 45-634(C), 45-635, 45-817(6), and 45- 818, that civil penalties be imposed through the first 30 days following the notice of inadequacy. However, if the inadequacy included the failure to pay all groundwater withdrawal fees due or all stored water recovery fees due, the late penalties as

provided in A.R.S. §§ 45-614(E) or 45-814(D) shall, except as provided in subsection (E) of this rule, begin to accrue on April 1.

**E.** A person may request a 30-day extension of the first day of accrual of the late penalties provided in A.R.S. §§ 45-614(E), 45-632(K), 45-655(C), 45-814(D), and 45-815(D) and of the civil penalties that the Director may recommend that a court impose pursuant to A.R.S. §§ 45-634(C), 45-635, 45-817(C) and 45-818. The request shall be filed no later than March 31. The Director may grant a request for a 30-day extension if good cause is shown. If the request is granted, and the person making the request is not subsequently found to have presented false or misleading information to the Director, the late penalties and civil penalties shall begin to accrue on May 1. The Director shall not grant an extension to a person who, in the preceding calendar year, was granted an extension and who subsequently failed to file a complete annual account or annual report and pay all groundwater withdrawal fees due and all stored water recovery fees due within the 30-day extension period.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

**R12-15-1015. Reporting requirements for conveyances of grandfathered rights and groundwater withdrawal permits**

**A.** A person who is required by A.R.S. § 45-482 to notify the Director of a conveyance of a grandfathered right shall file a notice of conveyance, on a form prescribed by the Director, within 30 days of the conveyance. All parties to the conveyance may use a single form for the required notice. Except provided in subsection (B) of this rule, the notice of conveyance shall include an accounting of the amount of water withdrawn or received pursuant to that grandfathered right from January 1 to the date of conveyance for that calendar year.

**B.** If the person to whom a grandfathered right is conveyed is unable, because of extraordinary circumstances and good cause shown, to perform the accounting otherwise required by subsection (A) of this rule, the Director may waive the requirement for that person.

**C.** If a person, including a person who is granted a waiver pursuant to subsection (B) of this rule, fails to include the required accounting in a timely filed notice of conveyance pursuant to subsection (A) of this rule, the Director shall determine the amount of groundwater withdrawn or received pursuant to the grandfathered right from January 1 to the date of conveyance for that calendar year. Such a person shall bear the burden, in any subsequent administrative or judicial proceeding, of establishing by clear and convincing evidence that the Director's determination was incorrect.

**D.** A person requesting the Director's approval of a proposed conveyance of a groundwater withdrawal permit pursuant to A.R.S. § 45-520(B) shall include with such request the quantity of groundwater withdrawn pursuant to the groundwater withdrawal permit for that calendar year and all other information required to be submitted pursuant to A.R.S. § 45-632.

**Historical Note**
Adopted effective December 12, 1990 (Supp. 90-4).

## ARTICLE 11. INSPECTIONS AND AUDITS

**R12-15-1101. Inspections**

**A.** For the purpose of this rule, "inspection" means an entry by the Director at reasonable times onto private or public property:
1. To obtain factual data or access to records required to be kept under A.R.S. §§ 45-632, 45-655, 45-815, or 45-864; or
2. To inspect a well or another facility for the withdrawal, transportation, use, measurement or recharge of groundwater under A.R.S. § 45-633; or
3. To inspect an underground or indirect storage and recovery project, a well, or another facility for the recovery or use of stored water under A.R.S. §§ 45-816 or 45-865; or
4. To inspect a body of water under A.R.S. § 45-135 or to ascertain compliance with A.R.S. Title 45, Chapter 1, Article 3; or
5. To inspect or to obtain factual data or access to records pursuant to any Section of A.R.S. Title 45 that requires the Director to adopt rules for conducting inspections, examining records, and obtaining warrants.

**B.** Not less than seven days prior to an inspection, the Director shall mail notice of the inspection by first class letter to the owner, manager or occupant of the property. The notice shall include the statutory authorization and purpose for the inspection. The notice shall specify a date and time certain or a seven-day period within which the inspection may take place. If a request is made before the seven-day period, the Director shall schedule the inspection for a time certain within the seven-day period to allow an opportunity for a representative of the property to be present at the inspection. The notice shall include the name and telephone number of a Department employee who may be contacted to arrange such an appointment.

**C.** Whenever practical, Department employees shall minimize disruptions to on-going operations caused by an inspection.

**D.** If the property is controlled or secured against entry at the time specified in the notice of inspection but consent to the inspection was not denied, the Director shall give a second notice in the manner prescribed in subsection (B) before seeking a search warrant or its equivalent. The second notice shall request that a representative of the property be present at the inspection to accompany Department personnel.

**E.** If the Director gives notice of an inspection and is not permitted to conduct an inspection, the Director may apply for and obtain a search warrant or its equivalent.

**F.** Notice of inspection shall not be required under subsections (B) and (D) of this rule if the Director reasonably believes that notice would frustrate the enforcement of A.R.S. Title 45, or where entry is sought for the sole purpose of inspecting water measuring devices required pursuant to A.R.S. § 45-604.

**G.** The Director shall mail a copy of the report of the inspection either to the person to whom the notice of inspection was directed, or to the owner, manager or occupant of the property if no notice of inspection was given. The report shall include the date of the inspection and a short summary of the findings. If no notice was given, the report shall include an explanation of the reason for determining that notice would not be given, unless providing the explanation would frustrate enforcement of A.R.S. Title 45. An aggrieved person may file with the Director written comments on the report within 30 days after the report is mailed.

**H.** The owner, manager or occupant of the property may waive the provisions for notice contained in this rule.

**Historical Note**
Adopted effective August 31, 1992 (Supp. 92-3).
Amended effective July 22, 1994 (Supp. 94-3).

**R12-15-1102. Audits**

**A.** For the purpose of this rule, "representative" means
1. An officer or director of a corporation subject to the audit,
2. A general partner of a partnership subject to the audit, or

3. A person who appears at an audit and produces a signed authorization to act on behalf of the person subject to the audit.

**B.** This rule applies to audits conducted pursuant to A.R.S. §§ 45-633(C), 45-880.01, and any other Section of A.R.S. Title 45 that authorizes the Director to require a person to appear at the Director's office and produce records and information and that also requires the Director to adopt rules for conducting inspections, examining records, and obtaining warrants.

**C.** No less than 20 days prior to an audit, the Director shall mail notice of the audit by first class letter to the person that is the subject of the audit. The notice shall state the date, time and place of the audit. The notice shall specify the records or information which the person must produce. The notice shall also include the statutory authorization and purpose for the audit and the name and telephone number of a Department employee who may be contacted for further information. The audit shall be held at the Department's offices, unless the Director grants a request to have the audit conducted at a different location.

**D.** The person subject to the audit or a representative shall appear at the scheduled time and shall produce the records and information specified in the notice. The person subject to the audit or a representative may make one request to reschedule the audit, which the Department shall grant if practicable.

**E.** The Director shall mail a copy of the report of the audit to the person subject to the audit. An aggrieved person may file with the Director written comments on the report within 30 days after the report is mailed.

**F.** The person subject to the audit may waive the provisions for notice contained in this rule.

**Historical Note**
Adopted effective August 31, 1992 (Supp. 92-3).
Amended effective July 22, 1994 (Supp. 94-3).

## ARTICLE 12. DAM SAFETY PROCEDURES

### R12-15-1201. General provisions

**A.** The State Engineer's office is located at 222 North Central Avenue, Suite 800, Phoenix, Arizona. All notices and contracts with the State Engineer shall be sent to and made at this address.

**B.** Forms with respect to these rules and regulations may be picked up or requested by mail at the address of the State Engineer. Copies of these rules will also be available at the office of the State Engineer. A copy of the application form is shown as Exhibit A following this Article.

**Historical Note**
Adopted effective November 2, 1978 (Supp. 78-6).
Former Section R12-15-01 renumbered without change as Section R12-15-1201 effective October 8, 1982 (Supp. 82-5).

### R12-15-1202. Professional engineering requirement

**A.** The plans and specifications accompanying an application for construction of a new dam or alteration, repair, enlargement, or removal of an existing dam shall be prepared by or under the direction of a professional engineer registered under the laws of Arizona, having proficiency in civil engineering as related to dam technology.

**B.** Engineers of the United States Soil Conservation Service who design and construct dams for owners other than the United States are not required to be registered in Arizona for purposes of these rules.

**Historical Note**
Adopted effective November 2, 1978 (Supp. 78-6).
Former Section R12-15-02 renumbered without change as Section R12-15-1202 effective October 8, 1982 (Supp. 82-5).

### R12-15-1203. Application procedure

**A.** An application for the construction of a new dam or enlargement, repair, alteration, or removal of an existing dam shall be prepared in duplicate and sent to the State Engineer on forms furnished by the State Engineer.

**B.** The application shall include at least the following information:

1. One complete set of plans and specifications prepared by a registered professional engineer (or U.S. Soil Conservation Service engineer).
2. Geotechnical engineering data including the results of foundation and materials exploration.
3. Engineering design data including basis assumptions as to loads and limiting stresses and as to methods of analyses for all structures, including the dam.
4. Hydraulic engineering data used in determining capacity of spillways and outlet works and hydrologic data used in deriving required spillway capacity.

**C.** Upon completion of the project, the total cost shall be tabulated and the fee recomputed in accordance with the law. If the recomputed fee exceeds the fee paid with the application then the owner shall pay the difference between the fee already paid and the recomputed fee.

**D.** Plans for the proposed work shall be filed in the form of paper prints. Notification of any changes required by the State Engineer will be given to the applicant. Thereafter, the drawings designated for approval by the State Engineer shall be submitted in triplicate together with two sets of specifications. After approval by the State Engineer one set of signed prints and approved application shall be returned to the applicant, one set of the drawings shall be retained for the permanent state records of the State Engineer and the third set shall be used for construction.

**Historical Note**
Adopted effective November 2, 1978 (Supp. 78-6).
Former Section R12-15-03 renumbered without change as Section R12-15-1203 effective October 8, 1982 (Supp. 82-5).

### R12-15-1204. Final inspection and license of approval

**A.** Upon completion of construction, the State Water Engineer shall be notified in writing and shall finally inspect the work as soon as practicable.

**B.** After final inspection by a field engineer, the applicant is required to file the following:

1. Affidavit of cost of construction. Attach breakdown of costs, including engineering.
2. Additional fee if final cost exceeds estimated cost, pursuant to Arizona Revised Statutes.
3. As-constructed plans, in the form of paper prints.

**C.** A license of approval shall be issued by the State Engineer after payment of all fees and upon a finding that the dam and reservoir are safe to impound water. No water shall be stored nor shall the reservoir be used without written permission of the State Engineer, pending issuance of a license of approval.

**Historical Note**
Adopted effective November 2, 1978 (Supp. 78-6).
Former Section R12-15-04 renumbered without change as Section R12-15-1204 effective October 8, 1982 (Supp. 82-5).

**R12-15-1205. Plans and specifications**

**A.** Engineering drawings shall be in sizes ranging from 22 inches by 36 inches to 28 inches by 42 inches. Letter-size drawings are not permitted. Drawings shall be prepared on conventional drawing material such that clear, legible prints can be obtained. Submittal of blue line or black line prints for final approval and signature will be satisfactory. In preparing the drawings, each sheet shall contain, in addition to the normal title block in the lower right-hand corner, space approximately 4" x 5" somewhere in proximity to the lower right-hand corner for application of the State Engineer signature block.

**B.** The minimum requirements of maps and drawings for small dams consist of the following:

1. Location map of the dam and the drainage basin above the structure.
2. A topographic map of the dam, spillway, outlet works and the reservoir. The scale should be large enough to accurately locate the dam and appurtenances and to indicate cut and fill lines. Elevations should be to a real datum base, rather than an assumed elevation. Contour intervals should be compatible with height and size of the dam and its appurtenances. An area capacity curve of the reservoir can be shown on this sheet.
3. Profile and section of the dam. The profile of the dam may be drawn to different horizontal and vertical scales. However, the maximum section of the dam should be drawn to a true scale. For a small dam the outlet conduit can be shown on the maximum section if this is typical of the proposed construction.
4. Details of the outlet works. This should include the intake structure, the gate system, conduit details, the trashrack, and the downstream outlet structure. Details should be sufficiently complete to accurately lay out the structure and build it. Schematic drawings are not acceptable.
5. Plan, profile, and control section of the spillway. This will also include details of any concrete work that may be contemplated. A complex control structure, a concrete chute, or an energy dissipating device for a terminal structure will require additional design details.

**C.** Drawings required for technical review of a major structure cannot be listed in detail because each dam is different. The following maps and drawings are required for the typical large structure:

1. Drainage basin above the proposed dam.
2. Location map for all foundation drill holes, auger holes, test pits, trenches, and borrow areas. Also, bench marks with elevations, reference points, permanent ties should be shown. These may be shown on a reservoir map.
3. Log of foundation drill holes and auger holes.
4. Topographic map of the damsite.
5. A topographic map of the reservoir, with area and capacity curves.
6. Plan, profile and sections of the dam, all at natural scales. Camber, crest details, interior drains, and zone details should be included.
7. Foundation plan showing excavation with proposed grout and drain holes.
8. Outlet works showing plan, profile, sections, and details.
9. Spillway showing plan, profile, sections and details.
10. Details of diversion scheme if applicable.

**D.** If there is question as to whether a dam is considered a small dam or a large dam, the owner may present any information he deems pertinent to the State Engineer and the State Engineer will then decide which category applied.

**E.** Specifications concerning the proposed method of construction shall be filed in duplicate with the application. The specifications shall include a detailed description of the work to be performed and a statement of the requirements for the various types of materials that will enter into the permanent construction, including, but not limited to, foundation preparation, placement of materials and concrete quality control. Also any special techniques should be carefully described.

**F.** If not included in the specifications, the construction schedule and a statement of the sequence of construction operations shall be filed in duplicate with and form a part of the application.

**Historical Note**

Adopted effective November 2, 1978 (Supp. 78-6). Former Section R12-15-05 renumbered without change as Section R12-15-1205 effective October 8, 1982 (Supp. 82-5).

**R12-15-1206. Construction control**

**A.** The owner is responsible for safety during and after completion of any construction of a new dam, enlargement, repair, alteration, or removal of an existing dam, and is responsible for inspections and completion of the work in accordance with the plans and specifications approved by the State Engineer.

**B.** The State Engineer shall determine that proper construction control is being exercised by the owner or the owner's engineer and any unsatisfactory condition shall be remedied by the owner or his engineer with the contractor.

**C.** The foundation of the dam shall be inspected by the State Engineer or his designee. The foundation shall not be covered over prior to such inspection and written approval of the foundation by the State Engineer or his designee. Inspection for the foundation for the outlet and spillway structures is also required and written approval of the State Engineer or his designee is required before covering over these foundations.

**D.** The State Engineer and his designee shall have access to the job for purposes of inspecting all phases of the construction, including, but not limited to, mechanical installations, concrete work, placement methods and strength test records.

**E.** Any deviations from the approved plans and specifications must be approved in writing by the State Engineer or his designee before proceeding therewith. Any problems encountered during construction which required any deviation from the plans and specifications approved by the State Engineer shall be immediately reported to the State Engineer.

**Historical Note**

Adopted effective November 2, 1978 (Supp. 78-6). Former Section R12-15-06 renumbered without change as Section R12-15-1206 effective October 8, 1982 (Supp. 82-5).

**EXHIBIT A**

**STATE OF ARIZONA**
**OFFICE OF THE STATE WATER ENGINEER**
**SUPERVISION OF SAFETY OF DAMS**

**Application No. _____Filed _____**
**(APPLICANT SHALL NOT FILL IN ABOVE BLANKS)**

**APPLICATION FOR THE APPROVAL OF THE PLANS AND SPECIFICATIONS FOR THE CONSTRUCTION, ENLARGEMENT, REPAIR, ALTERATION OR REMOVAL OF A DAM AND RESERVOIR**

(This application involves in no way the right to appropriate water. To secure the right to appropriate water, application has to be made to the State Lands Department, Division of Water Rights on forms which will be furnished upon request.)

This application is for the _____ of the _____ Dam.
(CONSTRUCTION REPAIR, ALTERATION, ETC.)

**LOCATION OF DAM**

This dam is in _____County, in the _____ 1/4, Sec. _____,Tp._____
R._____, G&SR, B&M, and is located on _____
(CREEK, RIVER OR WATERSHED)
tributary to _____.
CREEK OR RIVER

**OWNER**

Name _____

Address_____
STREET AND NUMBER, OR P.O. BOX

_____
CITY STATE ZIP TELEPHONE

If this application is for construction of a new dam, complete all lines (1 thru 21) except Item 15. For alteration, repair, enlargement or removal of a dam, complete Items 15 thru 21, and those other items where a change is being made.

**DESCRIPTION OF DAM AND RESERVOIR**

1. Type of dam _____
( EARTH, ROCK, CONCRETE GRAVITY, CONCRETE ARCH)
2. Crest length _____ft. Crest width _____ft.
3. Slope, upstream _____ Slope, downstream _____
4. Dam crest elevation _____ft. Spillway crest elevation _____
5. Dam height is _____feet (Measured from original ground level at the downstream toe to the spillway crest.)
6. Volume of the material in dam _____ cubic yards.
7. Water surface elevation is _____ feet at the time of maximum spillway discharge.
8. Spillway (type, sizes and capacity) _____
9. Outlet (type, size and capacity) _____
10. Reservoir capacity at spillway crest elevation is _____ acre feet.
11. Reservoir surface area at spillway crest elevation is _____ acres.

(See Reverse Side)

**HYDROLOGIC DATA**

12. Maximum Recorded Rainfall _____ inches in _____ hours.
Date _____ Location _____
13. Maximum Recorded Streamflow _____ cubic feet per second.
Date _____ Location _____
14. Drainage Area _____ square miles.

**GENERAL INFORMATION**

15. Description of Work (repair, alteration, etc.) _____
_____
_____
16. Use of Stored Water _____
17. What provisions to divert flood flows during construction? _____
_____
18. Construction will begin _____ Estimated Completion _____
(DATE) (DATE)
19. Estimated cost of dam, reservoir and appurtenances: $ _____
20. Fees accompanying this application: $ _____
21. Investigations, plainsman specifications prepared by_____
_____

Signed:_____
Address:_____
Legal Capacity if other than owner: ____
_____
Date: _____

APPROVAL OF APPLICATION No. _____. INCLUDING THE PLANS AND SPECIFICATIONS.

This is to certify that Application No. _____, including the plans and specifications for _____Dam and Reservoir has been examined and the same hereby approved, subject to the following terms and limitations:

1. Construction work shall be started within one (1) year from date.
2. No foundations or abutments shall be covered by the material of the dam until the State Engineer has been given an opportunity to inspect and approve the same.

_____
_____
_____

Dated this _____ day of _____, 19 _____

STATE WATER ENGINEER

By Chief, Supervision of Safety of Dams

# TITLE 12. NATURAL RESOURCES

## CHAPTER 16. SOLAR ENERGY COMMISSION

(Authority: A.R.S. § 41-574)

### ARTICLE 1. SOLAR ENERGY WARRANTY STATEMENT

Section
R12-16-101. Readability and understandability of warranty statement

### ARTICLE 2. STANDARDS FOR SOLAR DEVICES

Section
R12-16-201. Standards for solar devices to qualify for income tax credits

### ARTICLE 1. SOLAR ENERGY WARRANTY STATEMENT

**R12-16-101. Readability and understandability of warranty statement**

**A.** State law requires that anyone who manufactures, furnishes for installation or installs a solar energy device shall provide with such device a written statement of warranty or lack of warranty, responsibilities assumed or disclaimed, the collector performance data and, if available, system performance data for the solar energy device and/or component supplied to the buyer. Persons installing a solar energy device designed by the buyer are exempt from this requirement.

**B.** The form of the warranty statement required by this Section is subject to approval by the Executive Director. The form shall be readable and understandable to the average consumer. The warranty statement as required by A.R.S. § 44-1762 shall be in 8 point type or larger and the provisions of said warranty shall be expressed in plain, clear, and ordinary language. All technical terms used shall be defined in plain, clear and ordinary language.

**C.** A copy of the warranty statement shall be delivered to the Executive Director where it shall be kept on public file. Included with the warranty statement shall be a copy of all relevant warranties involved, sample product literature, collector performance data reports and, if available, system performance data report. These documents will be delivered prior to use in sales to buyers.

**Historical Note**

Adopted effective May 1, 1980 (Supp. 80-3).

### ARTICLE 2. STANDARDS FOR SOLAR DEVICES

**R12-16-201. Standards for solar devices to qualify for income tax credits**

**A.** Definitions. For the purpose of this Article, the following definitions shall apply:

1. "ARI" means Air-Conditioning and Refrigeration Institute.
2. "ASEC" means Arizona Solar Energy Commission.
3. "ASHRAE" means American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.
4. "ASTM" means American Society for Testing and Materials.
5. "ISCC" means Interstate Solar Coordination Council.
6. "NBS" means National Bureau of Standards.
7. "SEIA" means Solar Energy Industries Association.
8. "SRCC" means Solar Rating and Certification Corporation.
9. "Custom built collectors". Custom-built collectors are defined as those collectors whose design, manufacture and installation are dictated by unique requirements of a specific site which constrain collector design to one-of-a-kind construction rather than a standard production basis construction. Unique requirements would include factors such as location, size, shape, and tilt angle dictated by the structure to which the collectors are attached.

**B.** General standards. Effective for tax year 1981 and thereafter the standards to qualify solar devices for solar energy income tax credits are:

1. Warranties. Solar energy devices must meet the warranty and certificate of qualification requirements stated in A.R.S. § 43-1074(F)(1).
2. Disclosure of warranties. Warranties shall be disclosed as required in A.R.S. § 44-1762.
3. Installation. Installation of solar energy devices must be in compliance with the contractor licensing laws of the state of Arizona as set forth in A.R.S. § 32-1101 et. seq.

**C.** Standards for solar thermal collectors. Effective January 1, 1982, the standards to qualify solar collectors for solar energy income tax credits are as follows:

1. General. Certification and labeling described herein shall be required as a condition of eligibility of a manufactured collector or collector kit for solar tax credits authorized by A.R.S. §§ 43-1074, 43-1161 and 43-1162. Solar devices designed or installed by the tax claimant, custom-built collectors, and passive solar devices (except passive solar thermal collectors) are exempt from the requirements of this Section. Manufactured collector kits designed for homeowner assembly must be certified and labeled by the manufacturer since there is no guarantee that they will be owner-installed.
2. Testing. Solar thermal collectors shall be tested by an independent testing facility. The test method used shall be ASHRAE Standard 93-77 (Dated February 1977) or ASHRAE Standard 96-80 (for unglazed collectors, dated January 1980) and shall include, in order:
   a. Receiving inspection.
   b. Static pressure test.
   c. Thirty-day exposure test (NBS 1305A Stagnation Test).
   d. Thermal shock/water spray test.
   e. Thermal shock/cold fill test.
   f. Static pressure leakage.
   g. Collector time constant determination test.
   h. Post Exposure thermal performance test.
   i. Incident angle modifier test.
   j. Disassembly and final inspection.

   A copy of the summary of the test results shall be sent to ASEC to be filed with the manufacturer's records.
3. Certification and rating. Solar thermal collectors shall be certified and rated according to the following procedures.
   a. Certification. Certification of solar thermal collectors shall be performed according to the procedures specified in either of the following document sets:
      i. Certification according to SRCC procedures. Solar thermal collectors shall be certified as specified in SRCC Document "Standard OG-100: Operating Guidelines for Certifying Solar Collectors" (dated September 1981) a copy of which is on file with the Secretary of State and SRCC Document "Standard 100-81: Test Meth-

ods & Minimum Standards for Certifying Solar Collectors" (dated September 1981) a copy of which is on file with the Secretary of State.
OR

ii. Certification according to ARI procedures. Solar thermal collectors shall be certified as specified in ARI Document "OM-910: Certification Program for Solar Collectors, Operational Manual" (dated October 23, 1981) a copy of which is on file with the Secretary of State and ARI Document "Standard 910-81 for Solar Collectors" a copy of which is on file with the Secretary of State.

b. Rating. Solar thermal collectors shall be rated for thermal performance according to the procedures specified in SRCC Document "Standard RM-1: Methodology for Determining the Thermal Performance Ratings for Solar Collectors" (dated September 1981) a copy of which is on file with the Secretary of State.

Certification and rating shall be by either SRCC or ARI. The certification may be performed using either the SRCC or ARI documents. The rating will be performed using the SRCC Standard RM-1 document.

4. Certification of various sizes of collectors. Regardless of rating and certification methods utilized, recertification of various sized collectors of the same design, construction and materials shall not be required. The smallest collector representing that family of various sized collectors may be rated and certified. All other collectors of the same design, construction and materials may then be rated as prescribed by paragraph 3.1.3 of SRCC "Operating Guidelines for Certifying Solar Collectors" which states "Test results from one model may be used to certify a similar model if all materials and construction techniques are identical and only the collector size has been increased".
5. Labeling. An appropriate performance thermal rating label shall be affixed to each solar thermal collector. The rating label will be affixed in a location visible prior to and preferably after the installation. A sample of the thermal performance label supplied by the manufacturer for each model of solar collector being marketed shall be forwarded to ASEC for approval and filing purposes. A copy of the label with an explanation of its meaning shall be provided to each purchaser of a collector.
6. Filing. The following minimum material shall be placed on file by manufacturers at ASEC:
   a. Proof of certification by SRCC or ARI.
   b. A copy of the thermal performance rating results from SRCC or ARI.
   c. A copy of the performance label from SRCC or ARI.
   d. A copy of all warranties.
   e. If manufacturers sell directly to Arizona consumers, a copy of the "Certification of Qualifications for Arizona Solar Income Tax Credits and Warranty Disclosure Form" and a statement that all direct retail customers will be given the form shall also be placed on file.
   f. A summary of test results. Copies of complete test results are not required. The summary of test results must include as a minimum: instantaneous efficiency equation, incident angle modifier, time constant, and the name of the testing laboratory.
7. Waiver. If a manufacturer of a collector can document the inappropriateness of a specific test for that type collector, a request for waiver shall be sent to the Executive Director, ASEC, and the requirement may be waived or a substitute test required.

**D.** Listing of solar collectors eligible for Arizona solar tax credits. Commencing January 1, 1982, the Arizona Solar Energy Commission will regularly publish a list of solar collectors eligible for Arizona's solar tax credits. The list shall be made available to the general public.

1. Addition to the list. Those collectors which have been tested, rated and certified according to the standards in this regulation and which have on file at ASEC evidence of standards compliance, per subsection (C)(6) of this regulation, will be listed by manufacturer, model and model number.
2. Annual evidence of compliance. Prior to December 31st of each year, evidence of collector compliance with the standards of this regulation shall be submitted by manufacturers to ASEC. Proof of current certification by SRCC or ARI at that time will be sufficient evidence of compliance.
3. Removal from the list. If annual evidence of collector compliance with the standards in this regulation is not received at ASEC by December 31st of a given year, the collector will be removed from the list prior to the next publication of the list. In order to become relisted, collectors may be required to be retested and recertified by SRCC or ARI as specified in subsections (C)(2) and (3) of this regulation.

**Historical Note**

Adopted effective April 9, 1981 (Supp. 81-2). Amended effective June 30, 1982 (Supp. 82-3).

# TITLE 12. NATURAL RESOURCES

## CHAPTER 17. ARIZONA NAVIGABLE STREAMBED ADJUDICATION COMMISSION

(Authority: A.R.S. § 37-1122)

*Chapter 17, consisting of Article 1, Sections R12-17-101 through R12-17-112, adopted effective June 15, 1993, through an exemption from A.R.S. Title 41, Chapter 6, pursuant to Laws 1992, Ch. 297, § 6.* ***Exemption from A.R.S. Title 41, Chapter 6 means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules. Because this Chapter contains rules which are exempt from the regular rulemaking process, the Chapter is being printed on blue paper.***

### ARTICLE 1. HEARINGS

Section

R12-17-101. Definitions
R12-17-102. Scope of Rules and Waiver
R12-17-103. Filing and Service of Papers
R12-17-104. Computation of Time
R12-17-105. Petition to Modify Priority
R12-17-106. Notice of Hearing on Watercourse Navigability
R12-17-107. Conduct of Hearings
R12-17-108. Appearance and Practice Before the Commission
R12-17-109. Extension of Time
R12-17-110. Conferences and Procedural Orders
R12-17-111. Evidence
R12-17-112. Decisions

### ARTICLE 1. HEARINGS

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-101. Definitions**

**A.** "Attorney General" means the duly elected, qualified and acting Attorney General of Arizona and his duly appointed assistants.

**B.** "Chairperson" means the Chairperson or, in his absence, the Vice Chairperson of the Arizona Navigable Stream Adjudication Commission.

**C.** "Person" includes any public or private corporation, company, partnership, firm, association, club, organization, the Federal Government and any of its agencies and departments, the state and any of its agencies and departments or political subdivisions, and an Indian tribe or tribal organization as well as a natural person.

**D.** "Party" means the State Land Department and any person who has filed a notice of appearance with the Commission within the time prescribed by these rules.

**Historical Note**

Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-102. Scope of Rules and Waiver**

These rules shall be liberally construed to secure just and speedy determination of all matters presented to the Commission. If good cause appears, the Commission or Chairperson may waive application of these rules when waiver would not conflict with the law and would not affect substantial interests of the parties.

**Historical Note**

Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-103. Filing and Service of Papers**

**A.** Filing with the Commission. All papers required or permitted to be filed with the Commission in any proceeding shall be filed with the Secretary of the Commission. Filing may be accomplished by mail addressed to the Secretary of the Arizona Navigable Stream Commission, Arizona State Land Department, 1616 West Adams, Phoenix, Arizona 85007. Filings shall not be timely unless the papers are received by the Secretary within the time fixed for filing, except if filing is made by mailing, then filing shall be deemed timely if the papers are postmarked prior to midnight of the day fixed for filing.

**B.** Number of copies. Unless otherwise specifically provided by a particular rule or order of the Commission, an original and five copies of all papers shall be filed with the Secretary.

**C.** Service of all papers. Unless otherwise specifically provided by a particular rule or order of the Commission, copies of all papers filed by any party shall, at or before the time of filing, be served on all parties to the proceeding. Service on a party represented by counsel shall be made on counsel.

**D.** Manner of service. Service of all papers under these rules (except subpoenas which must be personally served) shall be made by personal service or by mail to the last known address.

**E.** Docket of proceedings. A docket of all proceedings shall be maintained by the Secretary and each proceeding shall be assigned a number and all papers filed in such proceeding shall be entered in the docket.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-104. Computation of Time**
In computing any period of time prescribed or allowed by these rules, or by order of the Commission, or by any applicable statute, the day of the act, event, or default after which the designated period of time begins to run is not to be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or legal holiday, in which event the period runs until the end of the next day. When a period of time prescribed or allowed is less than seven days, intermediate Saturdays, Sundays, and legal holidays shall be excluded in the computation.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-105. Petition to Modify Priority**
**A.** When a petition to modify the priorities established by the Commission pursuant to A.R.S. § 37-1123(D) has been filed with the Commission, the matter shall be noticed for consideration at the next Commission meeting.
**B.** The petition shall state the petitioner's name, mailing address and telephone number and shall identify with specificity the watercourse or reach sought to be granted expedited consideration. The petition shall state the petitioner's position regarding each of the factors the Commission must consider in setting priorities pursuant to A.R.S. § 37-1123(D).
**C.** Any person may oppose or support the petition to modify priorities when the petition is before the Commission on the agenda. At such time as the Chairperson may designate, each person desiring to be heard shall give his name, address and telephone number and shall state his position for the record. If an attorney, other than the Attorney General, appears on behalf of a client, he shall advise the Commission of his name, address and telephone number and give the same information regarding the person on whose behalf he appears and presents a position.
**D.** The Commission shall grant or deny the petition on the record and shall state the reasons therefor.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-106. Notice of Hearing on Watercourse Navigability**
**A.** At least 60 days before any public hearing under A.R.S. § 37-1126(B), the Commission shall serve notice to each record owner or lessee of property located within the bed of a watercourse or a reach of a watercourse that is the subject matter of the hearing, and to any person who has requested a notice of hearing on the subject watercourse, by mail addressed to the last known post office address.
**B.** The notice by publication required pursuant to A.R.S. § 37-1126(B) shall be published for three consecutive weeks.
**C.** In addition to the matters included in a notice of hearing issued pursuant to A.R.S. § 41-1061(B), the Commission shall include a statement directing any person intending to appear as a party at the hearing to comply with the requirements of R12-17-108.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-107. Conduct of Hearings**
**A.** The Chairperson shall regulate the course of the hearing in an impartial manner. The Commission may consult with the Attorney General during the hearing. The Chairperson and all parties may question witnesses in the order determined by the Commission or the Chairperson.
**B.** Transcription of hearings. All hearings shall be electronically recorded, or the Chairperson may, at the request of a party or on his own motion, order the hearing to be stenographically reported. The original transcript of the official record of any hearing, if available, or the original tape of the electronic record, if not transcribed, shall be filed with the Commission as a part of the record.
**C.** Filing of motions. Motions calling for a determination of any matter of law shall be filed with the Commission in writing. Any party may file a written opposition to such motion within seven days, unless otherwise ordered by the Chairperson. The Chairperson may permit oral motions during a hearing.
**D.** Rulings on motions. The Chairperson may rule on procedural motions but all other motions must be ruled upon by the Commission as a whole.
**E.** Consolidation. By order of the Chairperson, proceedings involving a common question of law or fact may be consolidated for hearing of any or all matters in issue where such consolidation may tend to avoid unnecessary cost or delay.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-108. Appearance and Practice Before the Commission**

**A.** A person may appear in a hearing in his own behalf or by counsel. A partnership may appear through a partner; other organizations may appear through a designated officer, and the Department may appear through a designated officer or its attorney.

**B.** At least 30 days prior to the date set for hearing, any person notified of the hearing by mail who intends to appear and participate in the hearing shall file with the Commission and serve on the Department a notice of appearance and intention to participate. A person notified by publication shall file and serve such notice no later than five days after the last publication date of the notice of hearing. All notices filed pursuant to this rule shall state the name, address and telephone number of the person filing the notice and of his attorney, if represented, and a concise statement of the position taken regarding navigability of the watercourse and the public trust values associated therewith.

**C.** The notice of appearance shall include the following information:

1. A list of all witnesses to be called to testify on behalf of the party and a summary of the testimony to be given by each witness; and
2. An index identifying all exhibits to be offered on behalf of the party.

**D.** Two bound and indexed copies of all documentary exhibits shall be filed with the notice of appearance. Within the filing deadlines specified in subsection (B) above, any person may file and serve the parties with a notice of filing documents and provide the Commission with two bound and indexed copies of documents for consideration by the Commission. Copies of Exhibits are not required to be served on other parties but may be examined and copies requested during regular hours of business. Without filing a notice of appearance or copies of exhibits, the Department may call as a witness any consultant or staff member who is identified as having participated in collecting and documenting the evidence transmitted to the Commission and may rely on any document transmitted to the Commission pursuant to A.R.S. § 37-1125. If the Department intends to call additional witnesses or to offer exhibits in addition to those provided pursuant to A.R.S. § 37-1124(B), it shall meet the requirements placed on persons appearing after notice by mail. Any party may file a list of rebuttal witnesses and two bound and indexed copies of rebuttal exhibits five days prior to the date of hearing.

**E.** Order of appearance. The Chairperson shall designate the order in which parties shall introduce their evidence.

**F.** Other appearances. Notwithstanding other provisions of these rules, the Chairperson may provide any person an opportunity to make a statement on matters relevant and material to the issues being addressed at the hearing at a time designated by the Chairperson. Such statements shall be under oath or affirmation and subject to cross-examination. All parties shall be provided an opportunity to rebut statements and documentary filings of nonparties.

**G.** Improper conduct. Conduct at any hearing which in the discretion of the Commission is deemed improper shall be grounds for exclusion from the hearing. Improper conduct includes willful noncompliance with an order of the Chairperson and willful disruption or obstruction of any hearing.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R-12-17-109. Extension of Time**

Except as otherwise provided by law, the Chairperson, on application of a party or on his own motion and for good cause, may extend any time limits prescribed by these rules or postpone the commencement of the hearing to a mutually satisfactory date and location.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-110. Conferences and Procedural Orders**

The Chairperson, on application of a party or on his own motion and upon written notice to all parties, may issue and sign procedural orders without convening the Commission. In his discretion, a conference may be held with the parties prior to any ruling on any procedural matter.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-111. Evidence**

**A.** Presentation and admission of evidence. All witnesses at the hearing shall testify under oath or affirmation. Parties shall

have the right to be represented by counsel and present oral or documentary evidence and conduct cross-examination. The Commission shall receive relevant, probative, and material evidence and the Chairperson shall rule upon offers of proof. Objection to the admission or exclusion of evidence must be made on the record and shall state the grounds upon which the objection is based. The Chairperson may limit and exclude all irrelevant, immaterial or unduly repetitious evidence.

**B.** Rules of evidence. Pursuant to A.R.S. § 41-1062(A), the Chairperson may conduct a hearing in an informal matter and without adherence to the rules of evidence required in judicial proceedings.

**C.** Discovery. Parties do not have the right to conduct discovery for the presentation of evidence except as otherwise provided for in A.R.S. § 41-1062(A)(4) and this rule.

**D.** Official notice. The Commission may take official notice of any matter that might be judicially noticed by a superior court of the state of Arizona, any matter in the public official records of the Department, or any matter that is peculiarly within the knowledge of the Department as an expert body.

**E.** Subpoenas and motions to quash.

1. In connection with any hearing, the Chairperson, upon written application of a party or on his own motion, may issue subpoenas requiring the attendance and testimony of witnesses or the production of documentary or other tangible evidence, or both.
2. Pursuant to A.R.S. § 41-1062(A)(4), the Chairperson, on written application of a party or on the Commission's motion, may permit a deposition to be taken. No deposition may exceed four hours absent express authorization from the Chairperson.
3. Any application for a subpoena or to take a deposition shall state:
   a. The case number and the time and place where the witness is expected to appear and testify;
   b. The name and address of the witness;
   c. With reasonable particularity, the documents or other tangible evidence, if any, sought; and
   d. Shall include a showing that the facts sought to be established are relevant, material and not unduly repetitious. An application to take a deposition shall also include a showing that the testimony or materials sought cannot otherwise be obtained through reasonable efforts.
4. Process issued by the Chairperson may be served by such person and in such manner as authorized by the Arizona Revised Statutes.
5. Any person to whom a subpoena is directed may, prior to the time specified therein for compliance but in no event more than five days after the date of service of such subpoena, move the Chairperson to quash or modify the subpoena, accompanying such motion with a brief statement of reasons therefor. The Chairperson shall then rule on the motion to quash.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).

***Editor's Note: The following Section was adopted under an exemption from the rulemaking provisions of A.R.S. Title 41, Ch. 6, which means that the Commission did not submit notice of this rulemaking to the Secretary of State's Office for publication in the Arizona Administrative Register; the Commission did not submit these rules to the Governor's Regulatory Review Council for review; the Department was not required to hold public hearings on these rules; and the Attorney General has not certified these rules.***

**R12-17-112. Decisions**

**A.** Final determination. Except as otherwise provided by law, within 30 days after the conclusion of a hearing conducted pursuant to A.R.S. § 37-1128(A), the Commission shall render a decision in writing and shall include findings of fact and conclusions of law that clearly state the basis and reasoning for the decision. Pursuant to A.R.S. § 37-1128(A), all decisions of the Commission shall be final and there shall be no right to rehearing before the Commission.

**B.** initial notice of final determination. In addition to immediately notifying the Department as required by A.R.S. § 37-1128(B), the Commission shall provide a copy of its final determination to all parties and may provide copies of its final determination to any person who has requested a copy of the final determination from the Commission. No deadline for seeking judicial review established by A.R.S. § 37-1129(A) shall be affected by any notice provided by the Commission.

**Historical Note**
Adopted effective June 15, 1993, pursuant to an exemption from the provisions of A.R.S. Title 41, Chapter 6 (Supp. 93-2).