
NOTICES OF FINAL RULEMAKING

This section of the *Arizona Administrative Register* contains Notices of Final Rulemaking. Final rules have been through the regular rulemaking process as defined in the Administrative Procedures Act. These rules were either approved by the Governor's Regulatory Review Council or the Attorney General's Office. Certificates of Approval are on file with the Office.

The final published notice includes a preamble and

text of the rules as filed by the agency. Economic Impact Statements are not published.

The Office of the Secretary of State is the filing office and publisher of these rules. Questions about the interpretation of the final rules should be addressed to the agency that promulgated them. Refer to Item #5 to contact the person charged with the rulemaking. The codified version of these rules will be published in the *Arizona Administrative Code*.

NOTICE OF FINAL RULEMAKING

TITLE 12. NATURAL RESOURCES

CHAPTER 1. RADIATION REGULATORY AGENCY

[R16-27]

PREAMBLE

<u>1. Article, Part or Section Affected (as applicable)</u>	<u>Rulemaking Action</u>
R12-1-102	Amend
R12-1-303	Amend
R12-1-306	Amend
R12-1-308	Amend
R12-1-311	Amend
R12-1-313	Amend
R12-1-320	Amend
R12-1-323	Amend
R12-1-418	Amend
R12-1-452	Amend
R12-1-503	Amend
R12-1-703	Amend
R12-1-1302	Amend
R12-1-1512	Amend
Article 19	New Article
R12-1-1901	New Section
R12-1-1903	New Section
R12-1-1905	New Section
R12-1-1907	New Section
R12-1-1909	New Section
R12-1-1911	New Section
R12-1-1921	New Section
R12-1-1923	New Section
R12-1-1925	New Section
R12-1-1927	New Section
R12-1-1929	New Section
R12-1-1931	New Section
R12-1-1933	New Section
R12-1-1941	New Section
R12-1-1943	New Section
R12-1-1945	New Section
R12-1-1947	New Section
R12-1-1949	New Section
R12-1-1951	New Section
R12-1-1953	New Section
R12-1-1955	New Section
R12-1-1957	New Section
R12-1-1971	New Section
R12-1-1973	New Section



R12-1-1975	New Section
R12-1-1977	New Section
R12-1-1979	New Section
R12-1-1981	New Section
R12-1-19101	New Section
R12-1-19103	New Section
R12-1-19105	New Section
R12-1-19107	New Section
R12-1-19109	New Section
Appendix A	New Section

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statute: A.R.S. § 30-654(B)(5)

Implementing statutes: A.R.S. §§ 30-651, 30-654, 30-657, 30-671(B), 30-672, 30-673, 30-681, 30-687, 30-688, and 30-689.

3. The effective date of the rule:

February 2, 2016. An immediate effective date when approved in order to remain in federal compliance with Agreement State status as stipulated in § 41-1032(A)(2).

4. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the final rulemaking package:

Notice of Rulemaking Docket Opening: 21 A.A.R. 2295, October 9, 2015

Notice of Proposed Rulemaking: 21 A.A.R. 2358, October 16, 2015

5. The agency's contact person who can answer questions about the rulemaking:

Name: Jerry W. Perkins

Address: Arizona Radiation Regulatory Agency
4814 S. 40th St.
Phoenix, AZ 85040

Telephone: (602) 255-4833

Fax: (602) 437-0705

Email: jperkins@azrra.gov

Website: www.azrra.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

This rulemaking package amends several rules to create security requirements mandated by the Agreement State document that Arizona entered into with the U.S. Nuclear Regulatory Commission (formerly the Atomic Energy Commission) authorized by A.R.S. § 30-656 authorizing the governor of Arizona to enter into the agreement. In accordance with Public Law 83-703, Title 1- Atomic Energy, Chapter 19, Section 274, as well as Article VI of the Agreement signed the 30th day of March 1967 by Jack Williams, Governor of Arizona [F.R. Doc. 67-4212; Filed, Apr. 17, 1967 8:48 a.m.], Agreement States delegated authority to regulate nuclear material will substantially adopt the rules and language used by the U.S. NRC in order to be compatible nationally to standards of protection. In addition, A.R.S. § 30-654(B)(6) requires the Agency to be as nearly as possible in conformity with the regulations of the NRC.

7. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

None

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. The preliminary summary of the economic, small business, and consumer impact: summary of the economic, small business, and consumer impact:

Currently, all registrants pay an annual fee which covers the administrative cost and inspection fees for each facility number. New fees will be specific to the cost of requesting fingerprinting reports from the Federal Bureau of Investigation. In many examples this fee is \$15 to \$40 per person. No new FTE's were needed for this rulemaking package so additional notice was not sent to the Joint Legislative Budget Committee (JLBC).



10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

The definition of “carrier” as noticed in the proposed rules under R12-1-1905 was relocated to R12-1-102 alphabetically in order to clarify that term for the entire chapter and to address a comment made by board member Wong of the Arizona Radiation Regulatory Hearing Board. Additionally, R12-1-323(C) was updated to include the incorporated material from the 2015 version of the 10 CFR 30.25 in order to address comment number 2 and the first half of comment number 3 from written comments supplied by the U.S. NRC as required for compatibility programs for adoption or amendment of rules related to radioactive materials. Six abbreviation explanations and a formula that was missing in Appendix A of Article 19 were added to address comment number nine from the NRC related to this rulemaking package. A clarification to the wording from effectiveness to commitment as appropriate as well as the addition of the missing term “plan” to R12-1-313(F) was made to address a comment from member Ray of the Radiation Regulatory Hearing Board. R12-1-311(D)’s incorporated material was updated from 2013 to 2015 to remain consistent with other modifications to rules in this package as the reference in that rule was already being amended. Non-substantive technical changes have also been made at the request of GRRC staff.

11. An agency’s summary of the public or stakeholder comments made about the rulemaking and the agencies response to the comments:

Agency received comments from the U.S. Nuclear Regulatory Commission in a document dated November 6, 2015 that included 10 comments related to the proposed rules in Rulemaking 0078. The first comment requested that the Agency adopt additional restrictions in R12-1-418(E) that were not adopted at this time as the Agency believes the request to be substantive requiring notice to the public. It will be considered at a future rulemaking. The second and third comments related to incorporated material already found in Agency rules under R12-1-323(C). For the portions already adopted, the Agency agreed to update the incorporated material to meet the second comment and that portion of the third comment that Arizona has licenses for. The portion of the third comment related to plutonium and uranium enrichment facility licenses was not adopted at this time as Arizona does not have a licensed facility that would use the rules nor does it have other rules related to these types of licenses. If the state were to grant a license for this type of facility, it would adopt these portions at that time. Additionally, Arizona does not have any licenses of large industrial irradiators under its jurisdiction so comment number 4 was not adopted at this time until such time as the Agency receives a request for this type of license and would adopt this verbiage related to financial assurance. Comment number 5 would require revisions to Article 17 that were not covered in this rulemaking package so it will be addressed in a later rulemaking package. Comment number 6 relates to certificates issued to entities on the sealed source device registry and Arizona does not have multiple entities of this type licensed at this time. Upon application of this type of license the Agency would adopt this verbiage related to financial assurance. The seventh comment asked the Agency to define “carriers” as listed in 10 CFR 30.13. However, 10 CFR 30.13 does not define “carriers” and the Agency had already proposed that “carriers be defined in R12-1-1905. Because the term is also used in R12-1-103, the Radiation Regulatory Hearing Board requested that he term be defined under R12-1-012 as it applies to the Chapter rather than just one Article. This was done in this rulemaking package and should satisfy the intent of the seventh comment from the NRC. The eighth comment relates to notification of reactor fuel transport across the state of Arizona and would require the amendment of R12-1-1512. The Agency believes this will require notification of the change to this rules that was not done in this package so it will need to be addressed in a future rulemaking. The ninth comment related to the missing last portion of Appendix A in Article 19 that is missing the explanation of six abbreviations and a formula. This was added as the intent of this Appendix is to match the code of federal regulations. The tenth comment was to update the federal mail stop address which does not appear to differ from what was noticed in the proposal so not action was needed.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The Agency believes that it is exempt from A.R.S. §§ 41-1037 due to paragraph (A)(2) as the issuance of an alternative type of permit is authorized under the statutory requirement of A.R.S. §§ 30-672 to protect the public health and safety.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The rule amendments are compatible with existing federal regulations and are not more stringent except for those types of radiation protection use whose regulation is authorized by Arizona statute that are not in the jurisdiction of an equivalent federal regulating body.

c. Whether a person submitted an analysis to the agency that compares the rule’s impact on the competitiveness of business in this state to the impact on business in other states:

No analysis has been completed as the regulated community must be in compliance with either federal regulations (if not under a state jurisdiction) or agreement state rules.



13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

<u>Rule</u>	<u>Incorporated Material</u>
R12-1-102	10 CFR 71, Appendix A, Table A-1,
R12-1-308(G)	10 CFR 32.210
R12-1-308(H)	10 CFR 32.211
R12-1-311(B)(2)	10 CFR 32.53 through 32.56
R12-1-311(C)(2)	10 CFR 32.57, 32.58, 32.59, and 70.39
R12-1-311(D)	10 CFR 32.57, 32.58, 32.59, and 70.39
R12-1-311(F)	10 CFR 32.61 and 32.62
R12-1-311(I)	10 CFR 32.74
R12-1-323(C)	10 CFR 30.35, 40.36, and 70.25
R12-1-323(E)(1)	10 CFR 30.36(g)(1), 40.42(g)(1), and 70.38(g)(1)
R12-1-323(E)(5)	10 CFR 30.36(i), 40.42(i), and 70.38(i)
R12-1-323(E)(6)	10 CFR 30.36(j), 40.42(j), and 70.38(j)
R12-1-503(A)	“Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography”, (published as NBS Handbook 136, and issued January 1981) by the American National Standards Institute
R12-1-503(B)(2)	10 CFR 71
R12-1-1302(D)(11)	10 CFR 61
R12-1-1512	10 CFR 71.97
R12-1-1911(B)	10 CFR part 73
R12-1-1921(C)(4)	10 CFR part 73
R12-1-1925(B)(2)	10 CFR part 73
R12-1-1927(A)(4)	10 CFR part 73
R12-1-1927(C)	10 CFR 37.7

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the Register as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rules follows:

TITLE 12. NATURAL RESOURCES

CHAPTER 1. RADIATION REGULATORY AGENCY

ARTICLE 1. GENERAL PROVISIONS

Section
R12-1-102. Definitions

ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

Section
R12-1-303. Radioactive Material Other Than Source Material; Exemptions
R12-1-306. General License – Radioactive Material Other Than Source Material
R12-1-308. Filing Application for Specific Licenses
R12-1-311. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices that Contain Radioactive Material
R12-1-313. Specific Terms and Conditions
R12-1-320. Reciprocal Recognition of Licenses
R12-1-323. Financial Assurance and Recordkeeping for Decommissioning

ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

Section
R12-1-418. Surveys and Monitoring
R12-1-452. Radiological Criteria for License Termination

ARTICLE 5. SEALED SOURCE INDUSTRIAL RADIOGRAPHY

Section
R12-1-503. Performance Requirements for Equipment



ARTICLE 7. MEDICAL USES OF RADIOACTIVE MATERIAL

Section R12-1-703. License for Medical Use of Radioactive Material

ARTICLE 13. LICENSE AND REGISTRATION FEES

Section R12-1-1302. License and Registration Categories

ARTICLE 15. TRANSPORTATION

Section R12-1-1512. Advance Notification of Shipment of Irradiated Reactor Fuel and Nuclear Waste

ARTICLE 18. RESERVED

ARTICLE 19. PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

Section

R12-1-1901. Purpose

R12-1-1902. Reserved

R12-1-1903. Scope

R12-1-1904. Reserved

R12-1-1905. Definitions

R12-1-1906. Reserved

R12-1-1907. Communications

R12-1-1908. Reserved

R12-1-1909. Interpretations

R12-1-1910. Reserved

R12-1-1911. Specific Exemptions

R12-1-1912. Reserved

R12-1-1913. Reserved

R12-1-1914. Reserved

R12-1-1915. Reserved

R12-1-1916. Reserved

R12-1-1917. Reserved

R12-1-1918. Reserved

R12-1-1919. Reserved

R19-1-1920. Reserved

R12-1-1921. Personnel Access Authorization Requirements for Category 1 or Category 2 Quantities of Radioactive Material

R12-1-1922. Reserved

R12-1-1923. Access Authorization Program Requirements

R12-1-1924. Reserved

R12-1-1925. Background Investigations

R12-1-1926. Reserved

R12-1-1927. Requirements for Criminal History Records Checks of Individuals Granted Unescorted Access to Category 1 or Category 2 Quantities of Radioactive Material

R12-1-1928. Reserved

R12-1-1929. Relief from Fingerprinting, Identification, and Criminal History Records Checks and Other Elements of Background Investigations for Designated Categories of Individuals Permitted Unescorted Access to Certain Radioactive Materials

R12-1-1930. Reserved

R12-1-1931. Protection of Information

R12-1-1932. Reserved

R12-1-1933. Access Authorization Program Review

R12-1-1934. Reserved

R12-1-1935. Reserved

R12-1-1936. Reserved

R12-1-1937. Reserved

R12-1-1938. Reserved

R12-1-1939. Reserved

R12-1-1940. Reserved

R12-1-1941. Security Program

R12-1-1942. Reserved

R12-1-1943. General Security Program Requirements

R12-1-1944. Reserved

R12-1-1945. Local Law Enforcement Agency (LLEA) Coordination

R12-1-1946. Reserved

R12-1-1947. Security Zones

R12-1-1948. Reserved

R12-1-1949. Monitoring, Detection, and Assessment



<u>R12-1-1950.</u>	<u>Reserved</u>
<u>R12-1-1951.</u>	<u>Maintenance and Testing</u>
<u>R12-1-1952.</u>	<u>Reserved</u>
<u>R12-1-1953.</u>	<u>Requirements for Mobile Devices</u>
<u>R12-1-1954.</u>	<u>Reserved</u>
<u>R12-1-1955.</u>	<u>Security Program Review</u>
<u>R12-1-1956.</u>	<u>Reserved</u>
<u>R12-1-1957.</u>	<u>Reporting of Events</u>
<u>R12-1-1958.</u>	<u>Reserved</u>
<u>R12-1-1959.</u>	<u>Reserved</u>
<u>R12-1-1960.</u>	<u>Reserved</u>
<u>R12-1-1961.</u>	<u>Reserved</u>
<u>R12-1-1962.</u>	<u>Reserved</u>
<u>R12-1-1963.</u>	<u>Reserved</u>
<u>R12-1-1964.</u>	<u>Reserved</u>
<u>R12-1-1965.</u>	<u>Reserved</u>
<u>R12-1-1966.</u>	<u>Reserved</u>
<u>R12-1-1967.</u>	<u>Reserved</u>
<u>R12-1-1968.</u>	<u>Reserved</u>
<u>R12-1-1969.</u>	<u>Reserved</u>
<u>R12-1-1970.</u>	<u>Reserved</u>
<u>R12-1-1971.</u>	<u>Additional Requirements for Transfer of Category 1 and Category 2 Quantities of Radioactive Material</u>
<u>R12-1-1972.</u>	<u>Reserved</u>
<u>R12-1-1973.</u>	<u>Applicability of Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Transit</u>
<u>R12-1-1974.</u>	<u>Reserved</u>
<u>R12-1-1975.</u>	<u>Preplanning and Coordination of Shipment of Category 1 or Category 2 Quantities of Radioactive Material</u>
<u>R12-1-1976.</u>	<u>Reserved</u>
<u>R12-1-1977.</u>	<u>Advance Notification of Shipment of Category 1 Quantities of Radioactive Material</u>
<u>R12-1-1978.</u>	<u>Reserved</u>
<u>R12-1-1979.</u>	<u>Requirements for Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Shipment</u>
<u>R12-1-1980.</u>	<u>Reserved</u>
<u>R12-1-1981.</u>	<u>Reporting Of Events</u>
<u>R12-1-1982.</u>	<u>Reserved</u>
<u>R12-1-1983.</u>	<u>Reserved</u>
<u>R12-1-1984.</u>	<u>Reserved</u>
<u>R12-1-1985.</u>	<u>Reserved</u>
<u>R12-1-1986.</u>	<u>Reserved</u>
<u>R12-1-1987.</u>	<u>Reserved</u>
<u>R12-1-1988.</u>	<u>Reserved</u>
<u>R12-1-1989.</u>	<u>Reserved</u>
<u>R12-1-1990.</u>	<u>Reserved</u>
<u>R12-1-1991.</u>	<u>Reserved</u>
<u>R12-1-1992.</u>	<u>Reserved</u>
<u>R12-1-1993.</u>	<u>Reserved</u>
<u>R12-1-1994.</u>	<u>Reserved</u>
<u>R12-1-1995.</u>	<u>Reserved</u>
<u>R12-1-1996.</u>	<u>Reserved</u>
<u>R12-1-1997.</u>	<u>Reserved</u>
<u>R12-1-1998.</u>	<u>Reserved</u>
<u>R12-1-1999.</u>	<u>Reserved</u>
<u>R12-1-19100.</u>	<u>Reserved</u>
<u>R12-1-19101.</u>	<u>Form of Records</u>
<u>R12-1-19102.</u>	<u>Reserved</u>
<u>R12-1-19103.</u>	<u>Record Retention</u>
<u>R12-1-19104.</u>	<u>Reserved</u>
<u>R12-1-19105.</u>	<u>Inspections</u>
<u>R12-1-19106.</u>	<u>Reserved</u>
<u>R12-1-19107.</u>	<u>Violations</u>
<u>R12-1-19108.</u>	<u>Reserved</u>
<u>R12-1-19109.</u>	<u>Criminal Penalties</u>
<u>Appendix A.</u>	<u>Category 1 and Category 2 Radioactive Materials</u>

ARTICLE 1. GENERAL PROVISIONS

R12-1-102. Definitions

No change

“A1” means the maximum activity of 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 procedures prescribed in 10 CFR 71, Appendix A, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

“A2” means the maximum activity of radioactive material, other than special form radioactive material, low specific activity (LSA) material, and surface contaminated object (SCO) 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, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

“Absorbed dose” No change

“Accelerator” No change

“Accelerator produced material” No change

“Act” No change

“Activity” No change

“Adult” No change

“Agency,” or “ARRA” No change

“Agreement State” No change

“Airborne radioactive material” No change

“Airborne radioactivity area” No change

“ALARA” No change

“Analytical x-ray equipment” No change

“Analytical x-ray system” No change

“Annual” No change

“Authorized medical physicist” No change

“Authorized nuclear pharmacist” No change

“Authorized user” No change

“Background radiation” No change

“Becquerel” (Bq) No change

“Bioassay” No change

“Brachytherapy” No change

“Byproduct material” No change

“Calendar quarter” No change

“Calibration” No change

“Carrier” means a person engaged in the transportation of passengers or property by land or water as a common, contract, or private carrier, or by civil aircraft.

“Certifiable cabinet x-ray system” No change

“Certificate holder” No change

“Certificate of Compliance” No change

“CFR” No change

“Chelating agent” No change

“Civil penalty” No change

“Collective dose” No change

“Committed dose equivalent” No change

“Committed effective dose equivalent” No change

“Consortium” No change

“Curie” No change

“Current license or registration” No change

“Deep-dose equivalent” No change



- “Depleted uranium” No change
- “Discrete source” No change
- “Dose” No change
- “Dose equivalent” No change
- “Dose limits” No change
- “Dosimeter” No change
- “Effective dose equivalent” No change
- “Effluent release” No change
- “Embryo/fetus” No change
- “Enclosed beam x-ray system” No change
- “Enclosed radiography” No change
- “Cabinet radiography” No change
- “Shielded room radiography” No change
- “Entrance or access point” No change
- “Exhibit” No change
- “Explosive material” No change
- “Exposure” No change
- “Exposure rate” No change
- “External dose” No change
- “Extremity” means ~~hand, elbow, arm below the elbow, foot, knee, and leg below the knee.~~ the shoulder girdle to the phalanges and the lower two-thirds of the femur to the phalanges.
- “Fail-safe characteristics” No change
- “FDA” No change
- “Field radiography” No change
- “Field station” No change
- “Former U.S. Atomic Energy Commission (AEC) or U.S. Nuclear Regulatory Commission (NRC) licensed facilities” No change
- “Generally applicable environmental radiation standards” No change
- “Gray” No change
- “Hazardous waste” No change
- “Healing arts” No change
- “Health care institution” No change
- “High radiation area” No change
- “Human use” No change
- “Impound” No change
- “Indian tribe” means an Indian or Alaska native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a.
- “Individual” No change
- “Individual monitoring” No change
- “Individual monitoring device” No change
- “Individual monitoring equipment” No change
- “Industrial radiography” No change



- “Injection tool” No change
- “Inspection” No change
- “Interlock” No change
- “Internal dose” No change
- “Irradiate” No change
- “Laser” No change
- “Lens dose equivalent” No change
- “License” No change
- “Licensed material” No change
- “Licensed practitioner” No change
- “Licensee” No change
- “Licensing State” No change
- “Limits” No change
- “Local components” No change
- “Logging supervisor” No change
- “Logging tool” No change
- “Lost or missing licensed or registered source of radiation” No change
- “Low-level waste” No change
- “Major processor” No change
- “Medical dose” No change
- “Member of the public” No change
- “Mineral logging” No change
- “Minor” No change
- “Monitoring” No change
- “Multiplier” No change
- “NARM” No change
- “Normal operating procedures” No change
- “Natural radioactivity” No change
- “NRC” No change
- “Nuclear waste” No change
- “Occupational dose” No change
- “Open beam system” No change
- “Package” No change
- “Particle accelerator” No change
- “Permanent radiographic installation” No change
- “Personnel dosimeter” No change
- “Personnel monitoring equipment” No change
- “Personal supervision” No change
- “PET” No change
- “Pharmacist” No change
- “Positron Emission Tomography (PET)” No change
- “Positron Emission Tomography radionuclide production facility” No change



- “Preceptor” No change
- “Primary beam” No change
- “Public dose” No change
- “Pyrophoric liquid” No change
- “Pyrophoric solid” No change
- “Qualified expert” No change
- “Quality Factor” No change
- “Quarter” No change
- “Rad” No change
- “Radiation” No change
- “Radiation area” No change
- “Radiation dose” No change
- “Radiation machine” No change
- “Radiation Safety Officer” No change
- “Radioactive marker” No change
- “Radioactive material” No change
- “Radioactivity” No change
- “Radiographer” No change
- “Radiographer’s assistant” No change
- “Registrant” No change
- “Registration” is the process by which a person becomes a registrant pursuant to Article 2 or 14 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” No change
- “Rem” No change
- “Research and Development” No change
- “Restricted area” No change
- “Roentgen” No change
- “Safety system” No change
- “Sealed source” No change
- “Sealed Source and Device Registry” No change
- “Shallow dose equivalent” No change
- “Shielded position” No change
- “Sievert” No change
- “Site boundary” No change
- “Source changer” No change
- “Source holder” No change
- “Source material” No change
- “Source material milling” No change
- “Source of radiation” or “source” No change
- “Special form radioactive material” No change
- “Special nuclear material in quantities not sufficient to form a critical mass” No change



- “Storage area” No change
- “Storage container” No change
- “Subsurface tracer study” No change
- “Survey” No change
- “TEDE” No change
- “Teletherapy” No change
- “Temporary job site” No change
- “Test” No change
- “These rules” No change
- “Total Effective Dose Equivalent” (TEDE) No change
- “Total Organ Dose Equivalent” (TODE) No change
- “Tribal official” means the highest ranking individual that represents Tribal leadership, such as the Chief, President, or Tribal Council leadership.
- “Unrefined and unprocessed ore” No change
- “Unrestricted area” No change
- “U.S. Department of Energy” No change
- “Very high radiation area” No change
- “Waste” No change
- “Waste handling licensees” No change
- “Week” No change
- “Well-bore” No change
- “Well-logging” No change
- “Whole body” No change
- “Wireline” No change
- “Wireline service operation” No change
- “Worker” means any individual engaged in work under a license or registration issued by the Agency and controlled by employment or contract with a licensee or registrant.
- “WL” No change
- “WLM” No change
- “Workload” No change
- “Year” No change

ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

R12-1-303. Radioactive Material Other Than Source Material; Exemptions

- A.** No change
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
- B.** No change
 - 1. No change
 - a. No change
 - i. No change
 - ii. No change
 - iii. No change
 - iv. No change
 - v. No change
 - vi. No change



- vii. No change
 - (1) No change
 - (2) No change
 - (3) No change
 - viii. No change
 - b. No change
 - i. No change
 - ii. No change
 - c. No change
 - d. No change
 - e. No change
 - f. No change
 - i. No change
 - ii. No change
 - iii. No change
 - iv. No change
 - v. No change
 - vi. No change
 - vii. No change
 - g. No change
 - i. No change
 - ii. No change
 - iii. No change
 - h. No change
2. Self-luminous products containing tritium, krypton-85, or promethium-147:
- a. Except for persons who manufacture, process, produce, initially transfer for sale or distribution ~~or produce~~ self-luminous products containing tritium, krypton-85, or promethium-147, and except as provided in paragraph (c) of this subsection, a person is exempt from this Chapter if the person receives, possesses, uses, owns, transfers or acquires tritium, krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced, imported, initially transferred for sale or distribution, 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.
 - b. Any person who desires to manufacture, process, or produce, or initially transfer for sale or distribution self-luminous products containing tritium, krypton-85, or promethium-147 for use under paragraph (a) of this subsection, should apply for a license described in R12-1-311.
 - c. This The exemption in paragraph (a) of this subsection does not apply to tritium, krypton-85, or promethium-147 used in products for primarily frivolous purposes or in toys or adornments.
 - ~~b-d.~~ 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.
3. Gas and aerosol detectors containing radioactive material
- a. Except for persons who manufacture, process, produce, or initially transfer for sale or distribution, ~~or produce~~ gas and aerosol detectors containing radioactive material, a person is exempt from this Chapter if the person receives, possesses, uses, transfers, owns, 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, this exemption also covers gas and aerosol detectors manufactured or distributed before November 30, 2007 in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, 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. Any person who desires to manufacture, process, or produce gas and aerosol detectors containing byproduct material, or to initially transfer such products for use under paragraph (a) of this subsection, should apply for a license described in R12-1-311.
 - ~~b-c.~~ 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 the regulations of the U.S. Nuclear Regulatory Commission.
4. Certain industrial devices
- a. Except for persons who manufacture, process, produce, or initially transfer for sale or distribution industrial devices containing byproduct material 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 an ionized atmosphere, any person is exempt from the requirements for a license set forth in this Chapter to the extent that such person receives, possesses, uses, transfers, owns, or acquires byproduct material, in these certain detecting, measuring, gauging, or controlling devices and certain devices for producing an ionized atmosphere, and manufactured, processed, produced, or initially transferred in accordance with a specific license issued under R12-1-311 of this Article, which license authorizes the initial transfer of the device for use under this section. This exemption does not cover sources not incorporated into a device, such as calibration and reference sources.

b. Any person who desires to manufacture, process, produce, or initially transfer, for sale or distribution, industrial devices containing byproduct material for use under paragraph (1) of this subsection, shall apply for a license described in R12-1-311.

- C. No change
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
 - 6. No change
 - 7. No change

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

~~A.~~ This subsection grants a general license that authorizes a commercial or industrial firm, to transfer, receive, acquire, own, possess, and use radioactive material incorporated in the following devices or equipment manufactured, tested, and labeled by the manufacturer in accordance with a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission under 10 CFR 31.3. The devices regulated by this subsection include:

- ~~1.~~ Devices designed for use as static eliminators that 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
- ~~2.~~ Devices designed for ionization of air that 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 1.85 GBq (50 millicuries) of hydrogen-3 (tritium) per device.

~~B.A.~~ Certain measuring, gauging or controlling devices and certain devices for producing light or an ionized atmosphere.

- 1. No change
- 2. A general licensee shall receive a device from one of the specific licensees described in this Section or through a transfer made under subsection ~~(B)(4)(k)-(A)(4)(k)~~.
- 3. A general license in subsection ~~(B)(1)-(A)(1)~~ applies only to radioactive material contained in devices that have been manufactured or initially transferred and labeled in accordance with the requirements contained in:
 - a. No change
 - b. No change
 - c. No change
- 4. A person who acquires, receives, possesses, uses, or transfers radioactive material in a device licensed under subsection ~~(B)(1)-(A)(1)~~ or through a transfer made under subsection ~~(B)(4)(h)-(A)(4)(h)~~, shall:
 - a. No change
 - b. No change
 - i. No change
 - ii. No change
 - c. Ensure that the tests required by subsection ~~(B)(4)(b)-(A)(4)(b)~~ and other testing, installation, servicing, and removal from installation involving the radioactive material or its shielding or containment, are performed:
 - i. No change
 - ii. No change
 - d. Maintain records of compliance with the requirements in subsections ~~(B)(4)(b) and (e) (A)(4)(b) and (c)~~ that show the results of tests; the dates that required activities were performed, and the names of persons performing required activities involving radioactive material from the installation and its shielding or containment. The records shall be maintained for three years from the date of the recorded event or until transfer or disposal of the device.
 - e. No change
 - i. No change
 - ii. No change
 - iii. Within 30 days of an event governed by subsection ~~(B)(4)(e)-(A)(4)(e)~~, the general licensee shall furnish a report that contains a brief description of the event and the remedial action taken and, in the case of detection of 185 Becquerel (0.005 microcurie) or more of removable radioactive material or failure of or damage to a source likely to result in contamination of the general licensee’s facility or the surrounding area, if



applicable, a plan for ensuring that the general licensee's facility and surrounding area, if applicable, are acceptable for unrestricted use. The radiological criteria for unrestricted use in R12-1-452 may be used to prepare the plan, as determined by the Agency, on a case-by-case basis.

- f. No change
 - g. No change
 - h. Transfer or dispose of a device that contains radioactive material only by export as authorized in subsection ~~(B)(4)(g)~~ (A)(4)(g), transfer to another general licensee as authorized in subsection ~~(B)(4)(k)~~ (A)(4)(k) or a person who is authorized to receive the device by a specific license issued by the Agency, the NRC, or an Agreement State, or collection as waste if authorized by equivalent regulations of an Agreement State, or the NRC, or as otherwise approved under subsection ~~(B)(4)(j)~~ (A)(4)(j).
 - i. No change
 - i. No change
 - ii. No change
 - iii. No change
 - j. Obtain written Agency approval before transferring a device to any other specific licensee that is not authorized in accordance with subsection ~~(B)(4)(h)~~ (A)(4)(h).
 - k. No change
 - i. If the device remains in use at a particular location. The transferor shall provide the transferee with a copy of this Section, a copy of R12-1-443, R12-1-445, and R12-1-448 and any safety documents identified on the device label. Within 30 days of the transfer, the transferor shall report to the Agency the manufacturer's (or initial transferor's) name; the model number and the serial number of the device transferred; the transferee's name and mailing address for the location of use; and the name, title, and telephone number of the responsible individual appointed by the transferee in accordance with subsection ~~(B)(4)(n)~~ (A)(4)(n);
or
 - ii. No change
 - l. No change
 - m. No change
 - n. No change
 - o. Register, in accordance with subsections ~~(B)(4)(p)~~ (A)(4)(p) and (q), any device that contains at least 370 megabecquerels (10 millicuries) of cesium-137, 3.7 megabecquerels (0.1 millicuries) of strontium-90, 37 megabecquerels (1 millicurie) of cobalt-60, or 37 megabecquerels (1 millicurie) of americium-241 or any other transuranic (i.e., element with atomic number greater than uranium (92)), based on the activity indicated on the label. Each address for a location of use, as described under subsection ~~(B)(4)(q)(iv)~~ (A)(4)(q)(iv), represents a separate general licensee and requires a separate registration and fee.
 - p. Register each device annually with the Agency and pay the fee required by R12-1-1306, Category D4, if in possession of a device that meets the criteria in subsection ~~(B)(4)(o)~~ (A)(4)(o). The general licensee shall register by verifying, correcting, and adding to the information provided in a request for registration received from the Agency. The registration information shall be submitted to the Agency within 30 days from the date on the request for registration. In addition, a general licensee holding devices meeting the criteria of subsection ~~(B)(4)(o)~~ (A)(4)(o) is subject to the bankruptcy notification requirements in R12-1-313(D).
 - q. No change
 - i. No change
 - ii. No change
 - iii. Name, title, and telephone number of the responsible individual appointed by the general licensee under subsection ~~(B)(4)(n)~~ (A)(4)(n);
 - iv. No change
 - v. No change
 - vi. No change
 - r. No change
 - s. Not use a device if the device has not been used for a period of two years. If a device with shutters is not being used, the general licensee shall ensure that the shutters are locked in the closed position. The testing required by subsection ~~(B)(4)(b)~~ (A)(4)(b) need not be performed during a period of storage. However, if a device is put back into service or transferred to another person, and has not been tested during the required test interval, the general licensee shall ensure that the device is tested for leakage before use or transfer and that the shutter is tested before use. A device kept in standby for future use is excluded from the two-year time limit in this subsection if the general licensee performs a quarterly physical inventory regarding the standby devices.
5. A person that is generally licensed by an Agreement State with respect to a device that meets the criteria in subsection ~~(B)(4)(o)~~ (A)(4)(o) is exempt from registration requirements if the device is used in an area subject to Agency jurisdiction for a period less than 180 days in any calendar year. The Agency does not request registration informa-



tion from a general licensee if the device is exempted from licensing requirements in subsection ~~(B)(4)(e)~~ (A)(4)(o).

- 6. The general license granted under subsection ~~(B)(1)~~ (A)(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.
- 7. The general license in subsection ~~(B)(1)~~ (A)(1) of this Section does not authorize the manufacture or import of devices containing byproduct material.

~~C.B.~~ No change

- 1. No change
- 2. A person who owns, receives, acquires, possesses, or uses a luminous safety device according to the general license granted in subsection ~~(C)(1)~~ (B)(1) is:
 - a. No change
 - b. No change
 - c. No change
 - d. No change
 - e. No change

~~D.C.~~ This subsection grants a general license that authorizes a person who holds a specific license to own, receive, possess, use, and transfer radioactive material if the Agency issues the license; or special nuclear material if the NRC issues the license. For americium-241, radium-226, and plutonium contained in calibration or reference sources, this subsection grants a general license in accordance with the provisions of subsections ~~(D)(1), (2), and (3)~~ (C)(1), (2), and (3). For plutonium, ownership is included in the licensed activities.

- 1. No change
- 2. A general license granted under subsection ~~(D) or (D)(1)~~ (C) or (C)(1) is 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) and (B), 30-681, and 30-685 through 30-689. In addition, a person who owns, receives, acquires, possesses, uses, or transfers one or more calibration or reference sources under a general license granted under subsection ~~(D) or (D)(1)~~ (C) or (C)(1) shall:
 - a. No change
 - b. No change
 - c. No change
 - d. No change
- 3. The general license granted under subsection ~~(D) or (D)(1)~~ (C) or (C)(1) does not authorize the manufacture or import of calibration or reference sources that contain americium-241, plutonium, or radium-226.
- 4. The general license granted under subsections ~~(D) or (D)(1)~~ (C) or (C)(1) does not authorize the manufacture or export of calibration or reference sources that contain americium-241, plutonium, or radium-226.

~~E.D.~~ This subsection grants a general license that authorizes a person to receive, possess, use, transfer, own, or acquire carbon-14 urea capsules, which contain one microcurie of carbon-14 urea for “in vivo” human diagnostic use:

- 1. Except as provided in subsections ~~(E)(2) and (3)~~ (D)(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. No change
- 3. No change
- 4. No change

~~F.E.~~ No change

- 1. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change
 - e. No change
 - f. No change
- 2. No change
 - a. No change
 - b. No change
- 3. No change
 - a. No change
 - b. Store the radioactive material, until used, in the original shipping container or in a container that provides equivalent radiation protection.
 - c. Use the radioactive material only for the uses authorized by subsection ~~(F)~~ (E).
 - d. No change
 - e. Not dispose of a mock iodine-125 reference or calibration source described in subsection ~~(F)(1)~~ (E)(1) except as authorized by R12-1-434.
 - f. No change



- g. No change
- 4. The general licensee shall not receive, acquire, possess, transfer, or use radioactive material according to subsection ~~(F)(1)~~ (E)(1):
 - a. Except as prepackaged units that are labeled according to the provisions of a specific license issued by the U.S. Nuclear Regulatory Commission, or any Agreement State that authorizes the manufacture and distribution of iodine-125, iodine-131, carbon-14, hydrogen-3 (tritium), iron-59, cobalt-57, selenium-75, or mock iodine-125 for distribution to persons generally licensed under subsection ~~(F)~~ (E) or its equivalent federal law; and
 - b. No change
 - i. No change
 - ii. No change
- 5. A physician, clinical laboratory or hospital that possesses or uses radioactive material under a general license granted by subsection ~~(F)~~ (E):
 - a. No change
 - b. Is exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10 with respect to radioactive material covered by the general license, except that a person using mock iodine-125 sources, described in subsection ~~(F)(1)(g)~~ (E)(1)(g), shall comply with the provisions of R12-1-434, R12-1-443, and R12-1-444 of this Chapter.
- 6. For the purposes of subsection ~~(F)~~ (E), a licensed veterinary care facility is considered a “clinical laboratory.”
- G.E.** This subsection grants a general license that authorizes a person to own, receive, acquire, possess, use, and transfer strontium-90, contained in ice detection devices, provided each device contains not more than 1.85 megabecquerels (50 microcuries) 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. A person who receives, owns, acquires, possesses, uses, or transfers strontium-90 contained in ice detection devices under a general license in accordance with subsection ~~(G)~~ (F):
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
- H.C.** This subsection grants a general license that authorizes a person to acquire, receive, possess, use, or transfer, in accordance with the provisions of subsections ~~(I) and (J)~~ (H) and (I), radium-226 contained in the following products manufactured prior to November 30, 2007.
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
- H.H.** Persons who acquire, receive, possess, use, or transfer byproduct material under the general license issued in subsection ~~(H)~~ (G) are exempt from the provisions 12 A.A.C. 1, Articles 1, 3, 4, 7, 10, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689, to the extent that the receipt, possession, use, or transfer of byproduct material is within the terms of the general license; provided, however, that this exemption shall not be deemed to apply to any such person specifically licensed under this chapter. Any person who acquires, receives, possesses, uses, or transfers byproduct material in accordance with the general license in subsection ~~(H)~~ (G):
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
- H.I.** The general license in subsection ~~(H)~~ (G) does not authorize the manufacture, assembly, disassembly, repair, or import of products containing radium-226, except that timepieces may be disassembled and repaired.

R12-1-308. Filing Application for Specific Licenses

- A. No change
- B. No change
- C. No change
- D. No change
- E. No change
- F. No change
- G. Except as provided in subsections (G)(1), (2), and (3), an application for a specific license to use byproduct material in the form of a sealed source or in a device that contains the sealed source must either identify the source or device by manufacturer and model number as registered with the Agency, NRC, or with an Agreement State, or, for a source or a device containing radium-226 or accelerator-produced radioactive material, with the Agency, NRC, or an Agreement



State under ~~10 CFR 32.210(e) revised January 1, 2013~~ 10 CFR 32.210 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

- 1. No change
 - a. No change
 - b. No change
- 2. No change
- 3. No change

H. A certificate holder or licensee who no longer manufactures or initially transfers any of the sealed source(s) or device(s) covered by a particular certificate issued with the Agency, NRC, or with an Agreement State shall request inactivation of the registration or license with the Agency, NRC, or with an Agreement State program that the device is currently registered by in accordance with 10 CFR 32.211 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

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

- A.** Licensing the manufacture and distribution of devices to persons generally licensed under ~~R12-1-306(B)~~ R12-1-306(A).
 - 1. The Agency shall grant a specific license to manufacture or distribute each device that contains radioactive material, excluding special nuclear material, to persons generally licensed under ~~R12-1-306(B)~~ R12-1-306(A) or equivalent regulations of the U.S. NRC, an Agreement State, or the Licensing State if:
 - a. No change
 - b. No change
 - i. No change
 - ii. No change
 - iii. No change
 - (1) No change
 - (2) No change
 - (3) No change
 - c. No change
 - i. No change
 - ii. No change
 - iii. No change
 - d. No change
 - e. No change
 - f. No change
 - g. The device has been registered in the Sealed Source and Device Registry.
 - 2. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change
 - e. No change
 - f. No change
 - g. No change
 - h. No change
 - i. No change
 - j. No change
 - 3. In the event the applicant desires that the general licensee under ~~R12-1-306(B)~~ R12-1-306(A), 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 percent of the limits specified in R12-1-408.
 - 4. A licensee authorized under subsection (A) to distribute a device to a generally licensed person shall provide, if a device that contains radioactive material is to be transferred for use under the general license granted in ~~R12-1-306(B)~~ R12-1-306(A), the name of each person that is licensed under R12-1-311(A) and the information specified in this subsection for each person to whom a device will be transferred. The licensee shall provide this information before the device may be transferred. In the case of transfer through another person, the licensee shall provide the listed information to the intended user before initial transfer to the other person.
 - a. No change



- i. A copy of the general license, issued under ~~R12-1-306(B)~~ R12-1-306(A),
 - ii. No change
 - iii. No change
 - iv. No change
 - v. No change
 - b. No change
 - i. No change
 - ii. No change
 - iii. No change
 5. No change
 - a. A copy of the Agreement State's requirements that are equivalent to R12-1-306(A) ~~and (B)~~, and A.R.S. §§ 30-657, R12-1-443, and R12-1-445. If a copy of NRC regulations is provided to a prospective general licensee in lieu of the Agreement State's requirements, the licensee shall explain in writing that use of the device is regulated by the Agreement State. If certain requirements do not apply to a particular device, the licensee may omit the requirement from the material provided;
 - b. No change
 - c. No change
 - d. No change
 6. No change
 7. No change
 8. No change
 - a. The person licensed under subsection (A) shall report all transfers of devices to persons for use under a general license obtained under ~~R12-1-306(B)~~ R12-1-306(A), and all receipts of devices from persons licensed under ~~R12-1-306(B)~~ R12-1-306(A) to the Agency, NRC, or other affected Agreement State. The report shall be submitted on a quarterly basis, in a clear and legible form, and contain the following information:
 - i. No change
 - ii. No change
 - iii. No change
 - iv. No change
 - v. No change
 - b. No change
 - c. For devices received from a general licensee, licensed under ~~R12-1-306(B)~~ R12-1-306(A), the report shall include:
 - i. No change
 - ii. No change
 - iii. No change
 - iv. No change
 - d. No change
 - e. No change
 - f. No change
 - g. If no transfers are made to or from persons generally licensed under ~~R12-1-306(B)~~ R12-1-306(A) during a reporting period, the person licensed under subsection (A) shall submit a report indicating the lack of activity.
 9. The licensee shall maintain records of all transfers for Agency inspection. Records shall be maintained for three years after termination of the license to manufacture the generally licensed devices regulated under ~~R12-1-306(B)~~ R12-1-306(A).
- B.** The Agency shall grant a specific license to manufacture, assemble, repair, or initially transfer luminous safety devices that contain tritium or promethium-147 for use in aircraft, for distribution to persons generally licensed under ~~R12-1-306(C)~~ R12-1-306(B), if the applicant satisfies:
1. No change
 2. The requirements of 10 CFR 32.53 through 32.56 revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
- C.** The Agency shall grant a specific license to manufacture or initially transfer calibration or reference sources that contain americium-241, radium-226, or plutonium for distribution to persons generally licensed under ~~R12-1-306(D)~~ R12-1-306(C) if the applicant satisfies:
1. No change
 2. The requirements of 10 CFR 32.57, 32.58, 32.59, and 70.39, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
- D.** The Agency shall grant a specific license to distribute radioactive material for use by a physician under the general license in ~~R12-1-306(E)~~ R12-1-306(D) if:
1. The general requirements of R12-1-309; and



- 2. The requirements of 10 CFR 32.57, 32.58, 32.59, and 70.39, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
 - a. No change
 - b. No change
- E. The Agency shall grant for a specific license to manufacture or distribute radioactive material for use under the general license of ~~R12-1-306(F)~~ R12-1-306(E) if:
 - 1. No change
 - 2. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change
 - e. No change
 - f. No change
 - g. No change
 - 3. No change
 - a. No change
 - b. No change
 - 4. No change
 - a. No change
 - b. No change
 - 5. No change
- F. The Agency shall grant for a specific license to manufacture and distribute ice detection devices to persons generally licensed under ~~R12-1-306(G)~~ R12-1-306(F) if the applicant satisfies:
 - 1. No change
 - 2. The criteria of 10 CFR 32.61 and 32.62, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
- G. No change
 - 1. No change
 - 2. No change
 - a. No change
 - b. No change
 - 3. No change
 - a. No change
 - b. No change
 - 4. No change
- H. No change
 - 1. No change
 - 2. No change
 - a. No change
 - b. No change
 - 3. No change
 - 4. No change
 - 5. No change
 - a. No change
 - b. No change
- I. The Agency shall grant a specific license to manufacture and distribute sources and devices that contain radioactive material to a person licensed in accordance with Article 7 of this Chapter for use as a calibration, transmission, or reference source or for medical purposes, if the applicant meets all of the requirements in 10 CFR 32.74, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
- J. No change
 - 1. No change
 - a. No change
 - b. No change
 - c. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - a. No change
 - b. No change



- i. No change
- ii. No change
- c. No change
- d. No change
- e. No change
- f. No change
- i. No change
- ii. No change
- iii. No change
- iv. No change
- v. No change
- vi. No change

- K. No change
- 1. No change
- 2. No change

R12-1-313. Specific Terms and Conditions

- A. No change
- B. No change
- 1. An application for transfer of license must include:
 - a. The identity, technical and financial qualifications of the proposed transferee; and
 - b. Financial assurance for decommissioning information required by R12-1-323.
- C. No change
- D. Each license issued pursuant to the rules in Articles 3, 5, 7, and 15 of this Chapter shall be deemed to contain the provisions set forth in the Act, whether or not these provisions are expressly set forth in the license.
- E. The Agency may incorporate, in any license issued pursuant to the rules in this Chapter, at the time of issuance, or thereafter by appropriate rule, regulation or order, such additional requirements and conditions with respect to the licensee's receipt, possession, use and transfer of byproduct material as it deems appropriate or necessary in order to:
 - 1. Promote the common defense and security;
 - 2. Protect health or to minimize danger to life or property;
 - 3. Protect restricted data; or
 - 4. Require such reports and the keeping of such records, and to provide for such inspections of activities under the license as may be necessary or appropriate to effectuate the purposes of the Act and rules thereunder.
- F. Licenses required to submit emergency plans in accordance with R12-1-322 shall follow the emergency plan approved by the Agency. The licensee may change the approved plan without Agency approval only if the changes do not reduce the commitment of the plan. The licensee shall furnish the change to the Agency and to affected offsite response organizations within six months after the change is made. Proposed changes that reduce, or potentially reduce, the commitment of the approved emergency plan may not be implemented without prior application to and prior approval by the Agency.
- ~~D.G.~~ Each person licensed under this Section and each general licensee that is required to register under ~~R12-1-306(B)(4)(e)~~ R12-1-306(A)(4)(o) shall notify the Agency in writing if the licensee decides to permanently discontinue any or all activities involving materials authorized under the license. A specific licensee or general 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, and
 - b. The bankruptcy case title and number, and
 - c. The date the petition was filed.
- ~~E.H.~~ Each licensee preparing technetium-99m radiopharmaceuticals from molybdenum-99/technetium-99m generators or rubidium-82 from strontium-82/rubidium-82 generators shall test the generator eluates for molybdenum-99 breakthrough or strontium-82 and strontium-85 contamination, respectively, in accordance with R12-1-720. The licensee shall record the results of each test and retain each record for three years after the record is made.

R12-1-320. Reciprocal Recognition of Licenses

- A. No change
- 1. No change
- 2. No change
- 3. No change
- 4. No change



- 5. No change
 - a. No change
 - b. No change
- B. Notwithstanding the provisions of subsection (A)(1), this subsection grants a general license to manufacture, install, transfer, demonstrate, or service a device described in ~~R12-1-306(B)(1)~~ R12-1-306(A)(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. No change
 - 2. No change
 - 3. No change
 - 4. The holder of the specific license furnishes a copy of the general license contained in ~~R12-1-306(B)(1)~~ R12-1-306(A)(1), 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. No change
- D. No change
- E. No change
 - 1. No change
 - 2. No change
- F. No change

R12-1-323. Financial Assurance and Recordkeeping for Decommissioning

- A. No change
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
- B. No change
- C. When applying, each applicant for a specific license that authorizes 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 Section, shall submit to the Agency a decommissioning funding plan or certification of financial assurance that meets the requirements in 10 CFR 30.35, 40.36, and 70.25, revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
 - 1. Each decommissioning funding plan shall be submitted to the Agency for review and approval and shall contain:
 - a. A detailed cost estimate for decommissioning, in an amount reflecting:
 - i. The cost of an independent contractor to perform all decommissioning activities;
 - ii. The cost of meeting the R12-1-452(B) criteria for unrestricted use, provided that, if the applicant or licensee can demonstrate its ability to meet the provisions of R12-1-453(C), the cost estimate may be based on meeting the R12-1-453(C) criteria;
 - iii. The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination; and
 - iv. An adequate contingency factor.
 - b. Identification of and justification for using the key assumptions contained in the DCE;
 - c. A description of the method of assuring funds for decommissioning from paragraph (F) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility;
 - d. A certification by the licensee that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning; and
 - e. An original signed copy of the financial instrument obtained to satisfy the requirements of paragraph (F) of this section (unless a previously submitted and accepted financial instrument continues to cover the cost estimate for decommissioning).
- D. No change
 - 1. No change
 - 2. No change
 - 3. No change
- E. Decommissioning procedures:
 - 1. Upon expiration or termination of principal activities a licensee shall notify the Agency in writing whether the licensee is discontinuing licensed activities. The licensee shall begin decommissioning its facility within 60 days after the Agency receives notice of the decision to permanently terminate principal activities, or within 12 months after receipt of notice, submit to the Agency a decommissioning plan, as prescribed in 10 CFR 30.36(g)(1), 40.42(g)(1), and 70.38(g)(1), revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. The licensee shall begin decommission-



ing 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). 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 a request for an extension no later than 30 days after the Agency receives the notice required in subsection (E)(1).
 - b. If a licensee has requested an extension, the licensee is not required to commence decommissioning activities required in subsection (E)(1), until the Agency has made a determination on the request submitted to the Agency under 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), 40.42(i), and 70.38(i), revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
6. As a final step in decommissioning, the licensee shall meet the requirements specified in 10 CFR 30.36(j), 40.42(j), and 70.38(j), revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

F. Each person licensed under this Article shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with R12-1-318, licensees shall transfer all records described in this paragraph to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Agency considers important to decommissioning consists of:

1. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations.
2. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.
3. Except for areas containing depleted uranium used only for shielding or as penetrators in unused munitions, a list contained in a single document and updated every 2 years, of the following:
 - a. All areas designated and formerly designated as restricted areas as defined under R12-1-102;
 - b. All areas outside of restricted areas that require documentation under R12-1-323(F)(1);
 - c. All areas outside of restricted areas where current and previous wastes have been buried as documented under R12-1-441; and
 - d. All areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in R12-1-451, or R12-1-452; or apply for approval for disposal under R12-1-435.
4. 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.

G. In providing financial assurance under this section, each licensee shall use the financial assurance funds only for decommissioning activities and each licensee shall monitor the balance of funds held to account for market variations. The licensee shall replenish the funds, and report such actions to the Agency, as follows:

1. If, at the end of a calendar quarter, the fund balance is below the amount necessary to cover the cost of decommissioning, but is not below 75 percent of the cost, the licensee shall increase the balance to cover the cost, and shall do so within 30 days after the end of the calendar quarter.
2. If, at any time, the fund balance falls below 75 percent of the amount necessary to cover the cost of decommissioning, the licensee shall increase the balance to cover the cost, and shall do so within 30 days of the occurrence.



- 3. Within 30 days of taking the actions required by paragraph (G)(1) or (G)(2) of this section, the licensee shall provide a written report of such actions to the Director of the Agency, and state the new balance of the fund.
- H.** The financial instrument must include the licensee's name, license number, and docket number, and the name, address, and other contact information of the issuer, and, if a trust is used, the trustee. When any of the foregoing information changes, the licensee must, within 30 days, submit financial instruments to the Agency reflecting such changes. The financial instrument submitted must be a signed original or signed original duplicate, except where a copy of the signed original is specifically permitted. Financial assurance for decommissioning must be provided by one or more of the following methods:
 - 1. Prepayment. Prepayment is the deposit before the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs. Prepayment must be made into a trust account, and the trustee and the trust must be acceptable to the Agency.
 - 2. A surety method, insurance, or other guarantee method. These methods guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, or letter of credit. A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are approved by the Agency. For commercial corporations that issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are approved by the Agency. For commercial companies that do not issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs may be used if the guarantee and test are approved by the Agency. For nonprofit entities, such as colleges, universities, and nonprofit hospitals, a guarantee of funds by the applicant or licensee may be used if the guarantee and test are approved by the Agency. Except for an external sinking fund, a parent company guarantee or a guarantee by the applicant or licensee may not be used in combination with any other financial methods used to satisfy the requirements of this section. A guarantee by the applicant or licensee may not be used in any situation where the applicant or licensee has a parent company holding majority control of the voting stock of the company. Any surety method or insurance used to provide financial assurance for decommissioning must contain the following conditions:
 - a. The surety method or insurance must be open-ended or, if written for a specified term, such as five years, must be renewed automatically unless 90 days or more prior to the renewal date, the issuer notifies the Agency, the beneficiary, and the licensee of its intention not to renew. The surety method or insurance must also provide that the full face-value amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the Agency within 30 days after receipt of notification of cancellation.
 - b. The surety method or insurance must be payable to a trust established for decommissioning costs. The trustee and trust must be acceptable to the Agency. An acceptable trustee includes an appropriate State or Federal government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.
 - c. The surety method or insurance must remain in effect until the Agency has terminated the license.
 - 3. An external sinking fund in which deposits are made at least annually, coupled with a surety method, insurance, or other guarantee method, the value of which may reduce by the amount being accumulated in the sinking fund. An external sinking fund is a fund established and maintained by setting aside funds periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund must be in the form of a trust. If the other guarantee method is used, no surety or insurance may be combined with the external sinking fund. The surety, insurance, or other guarantee provisions must be as stated in paragraph (H)(2) of this section.
 - 4. In the case of Federal, State, or local government licensees, a statement of intent containing a cost estimate for decommissioning, and indicating that funds for decommissioning will be obtained when necessary.
 - 5. When a governmental entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity.

ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

R12-1-418. Surveys and Monitoring

- A.** No change
 - 1. No change
 - 2. No change
 - a. The magnitude and extent of radiation levels, and
 - b. Concentrations or quantities of residual radioactivity ~~radioactive material~~, and
 - c. The potential radiological hazards of the radiation levels and residual radioactivity detected.
- B.** No change
 - 1. No change
 - 2. No change



- C. No change
- D. No change
- E. No change
 - 1. No change
 - 2. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change

R12-1-452. Radiological Criteria for License Termination

- A. No change
 - 1. No change
 - 2. No change
 - a. No change
 - b. No change
 - 3. No change
 - 4. No change
- B. No change
- C. No change
 - 1. No change
 - 2. No change
 - 3. The licensee demonstrates financial assurance that complies with R12-1-323(C), which enables an independent third party, including a governmental custodian of the site, to assume and carry out responsibilities for control and maintenance of the site and funds placed into a trust segregated from the licensee's assets and outside the licensee's administrative control, and in which the adequacy of the trust funds is to be assessed based on an assumed annual 1 percent real rate of return on investment;
 - 4. No change
 - a. No change
 - i. No change
 - ii. No change
 - b. No change
 - i. No change
 - ii. No change
 - iii. No change
 - 5. No change
 - a. No change
 - b. No change
 - c. No change
- D. No change
 - 1. No change
 - a. No change
 - b. No change
 - c. Reduces doses to ALARA levels, taking into consideration any ~~detriment, such as deaths from transportation accidents~~ detriments such as traffic accidents expected to potentially result, that is likely to result from decontamination and waste disposal; and
 - d. No change
 - i. No change
 - ii. No change
 - iii. No change
 - e. Has provided sufficient financial assurance in the form of a trust fund to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site.
 - 2. No change
- E. No change
 - 1. No change
 - a. No change
 - b. No change
 - 2. No change
- F. No change
 - 1. Applicants for standard design certifications, standard design approvals, and manufacturing licenses shall describe in the application how facility design will minimize, to the extent practicable, contamination of the facility and the



environment, facilitate eventual decommissioning, and minimize, to the extent practicable, the generation of radioactive waste.

- 2. Licensees shall, to the extent practical, conduct operations to minimize the introduction of residual radioactivity into the site, including the subsurface, in accordance with the existing radiation protection requirements in this Article and radiological criteria for license termination in this Article.

G. No change

Table 1. No change

ARTICLE 5. SEALED SOURCE INDUSTRIAL RADIOGRAPHY

R12-1-503. Performance Requirements for Equipment

A. No change

- 1. Each radiographic exposure device, source assembly or sealed source, and all associated equipment meet the requirements in American National Standards Institute, N432-1980 "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography", 1980 edition, (published as NBS Handbook 136, and issued January 1981) by the American National Standards Institute, which is incorporated by reference and on file with the Agency. This incorporation by reference contains no future editions or amendments. This publication may be purchased from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018 25 West 43rd Street, New York, New York 10036 Telephone (212) 642-4900. A copy of the document is also on file at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html; or

- 2. No change

B. No change

- 1. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change
 - e. No change
- 2. A licensee shall ensure that each radiographic exposure device intended for use as a Type B transport container meets the applicable requirements of 10 CFR 71, 2003 edition, published revised January 1, 2003 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments, by the Office of the Federal Register National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency. This incorporation by reference contains no future editions or amendments.

- 3. No change

C. No change

- 1. No change
- 2. No change
- 3. No change
- 4. No change
- 5. No change
- 6. No change
- 7. No change
- 8. No change
- 9. No change

D. No change

E. No change

ARTICLE 7. MEDICAL USES OF RADIOACTIVE MATERIAL

R12-1-703. License for Medical Use of Radioactive Material

A. No change

- 1. No change
- 2. No change
- 3. No change

B. No change

- 1. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change



2. No change
 - a. No change
 - i. No change
 - ii. No change
 - iii. No change
 - iv. No change
 - b. No change
 - c. No change
- C. No change
 1. No change
 - a. No change
 - b. No change
 - c. No change
 - d. No change
 2. No change
 - a. No change
 - b. No change
 - c. No change
 3. Any licensee who is licensed according to subsection (C)(1), for one 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)~~ R12-1-306(E) for the specified in vitro uses without filing Form ARRA-9 as required by ~~R12-1-306(F)(2)~~ R12-1-306(E)(2); provided, that the licensee is subject to the other provisions of ~~R12-1-306(F)~~ R12-1-306(E).
- D. No change

ARTICLE 13. LICENSE AND REGISTRATION FEES

R12-1-1302. License and Registration Categories

- A. No change
 1. No change
 2. No change
 3. No change
 4. No change
- B. No change
 1. No change
 2. No change
 3. No change
 4. No change
 5. No change
 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)~~ R12-1-306(D) or R12-1-306(E). A general medical license may be combined into a broad medical, medical materials class A, or medical materials class B license.
- C. No change
 1. No change
 2. No change
 3. No change
 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)~~ R12-1-306(A), (C) or (F) for uses authorized in those subsections, but in quantities greater than authorized by those subsections.
 5. No change
 6. No change
 7. No change
 8. No change
 9. No change
 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)~~ R12-1-305(B), R12-1-306(D), or R12-1-306(E).
 11. No change
 12. No change
 13. No change
 14. No change
 15. No change
 16. No change



- 17. No change
- D.** No change
 - 1. No change
 - a. No change
 - b. No change
 - 2. No change
 - 3. No change
 - 4. A general industrial license is a registration of a gauging device in accordance with ~~R12-1-306(B)~~ R12-1-306(A). The Agency may combine a general industrial license with a Class A, B, or C broad industrial, limited industrial, portable gauge, or Class A or B fixed gauge license.
 - 5. No change
 - 6. No change
 - 7. A general veterinary medicine license is a registration of the use of the general license authorized in ~~R12-1-306(F)~~ R12-1-306(E) in veterinary medicine.
 - 8. No change
 - 9. No change
 - 10. No change
 - 11. A low-level, radioactive waste disposal facility license is a license that is issued for a “disposal facility,” as that term is used in R12-1-439 and R12-1-442, which has a closure or long-term care plan and is constructed and operated according to the requirements in 10 CFR 61, 2003 edition, published January 1, 2003, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency, and contains no future editions or amendments. ~~revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.~~
 - 12. No change
 - 13. No change
 - 14. No change
 - 15. No change
 - 16. No change
 - 17. No change
 - 18. No change
 - 19. No change
- E.** No change
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
 - 6. No change
- F.** No change
 - 1. No change
 - 2. No change
 - 3. No change
 - 4. No change
 - 5. No change
 - 6. No change
 - 7. No change
 - 8. No change
 - 9. No change
 - 10. No change
 - 11. No change
 - 12. No change
 - 13. No change
 - 14. No change
 - 15. No change
 - 16. No change

ARTICLE 15. TRANSPORTATION

R12-1-1512. Advance Notification of Shipment of Irradiated Reactor Fuel and Nuclear Waste
A licensee shall provide advance notification to the Governor, or the Director of the Agency, of the shipment of licensed material as specified in 10 CFR 71.97, revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-



101. This incorporated material contains no future editions or amendments.

ARTICLE 18. RESERVED

ARTICLE 19. PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

R12-1-1901. Purpose

This Article has been established to provide the requirements for the physical protection program for any licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material listed in Appendix A to this Article. These requirements provide reasonable assurance of the security of category 1 or category 2 quantities of radioactive material by protecting these materials from theft or diversion. Specific requirements for access to material, use of material, transfer of material, and transport of material are included. No provision of this Article authorizes possession of licensed material.

R12-1-1902. Reserved

R12-1-1903. Scope

- A.** R12-1-1921 through R12-1-1957 of this Article apply to any person who, under the rules in this chapter, possesses or uses at any site, an aggregated category 1 or category 2 quantity of radioactive material.
- B.** R12-1-1971 through R12-1-1981 of this Article applies to any person who, under the rules of this chapter:
1. Transports or delivers to a carrier for transport in a single shipment, a category 1 or category 2 quantity of radioactive material; or
 2. Imports or exports a category 1 or category 2 quantity of radioactive material; the provisions only apply to the domestic portion of the transport.

R12-1-1904. Reserved

R12-1-1905. Definitions

The following definitions apply in this Article, unless the context otherwise requires:

“Access control means a system for allowing only approved individuals to have unescorted access to the security zone and for ensuring that all other individuals are subject to escorted access.

“Act” means the Atomic Energy Act of 1954 (68 Stat. 919), including any amendments thereto.

“Aggregated” means accessible by the breach of a single physical barrier that would allow access to radioactive material in any form, including any devices that contain the radioactive material, when the total activity equals or exceeds a category 2 quantity of radioactive material.

“Agreement State” means any state with which the Atomic Energy Commission or the U.S. Nuclear Regulatory Commission has entered into an effective agreement under subsection 274b. of the Act. Non-agreement State means any other State.

“Approved individual” means an individual whom the licensee has determined to be trustworthy and reliable for unescorted access in accordance with R12-1-1921 through R12-1-1933 of this Article and who has completed the training required by R12-1-1943(C).

“Background investigation” means the investigation conducted by a licensee or applicant to support the determination of trustworthiness and reliability.

“Becquerel (Bq)” means one disintegration per second.

“Byproduct material” means the same as in R12-1-102.

“Category 1 quantity of radioactive material” means a quantity of radioactive material meeting or exceeding the category 1 threshold in Table 1 of Appendix A to this Article. This quantity is determined by calculating the ratio of the total activity of each radionuclide to the category 1 threshold for that radionuclide and adding the ratios together. If the sum is equal to or exceeds 1, the quantity would be considered a category 1 quantity. Category 1 quantities of radioactive material do not include the radioactive material contained in any fuel assembly, subassembly, fuel rod, or fuel pellet.

“Category 2 quantity of radioactive material” means a quantity of radioactive material meeting or exceeding the category 2 threshold but less than the category 1 threshold in Table 1 of Appendix A to this Article. This quantity is determined by calculating the ratio of the total activity of each radionuclide to the category 2 threshold for that radionuclide and adding the ratios together. If the sum is equal to or exceeds 1, the quantity would be considered a category 2 quantity. Category 2 quantities of radioactive material do not include the radioactive material contained in any fuel assembly, subassembly, fuel rod, or fuel pellet.

“Commission” means the U.S. Nuclear Regulatory Commission or its duly authorized representatives.

“Curie” means the same as in R12-1-102.



“Diversion” means the unauthorized movement of radioactive material subject to this Article to a location different from the material’s authorized destination inside or outside of the site at which the material is used or stored.

“Escorted access” means accompaniment while in a security zone by an approved individual who maintains continuous direct visual surveillance at all times over an individual who is not approved for unescorted access.

“Fingerprint orders” means the orders issued by the U.S. Nuclear Regulatory Commission or the legally binding requirements issued by Agreement States that require fingerprints and criminal history records checks for individuals with unescorted access to category 1 and category 2 quantities of radioactive material or safeguards information-modified handling.

“Government agency” means any executive department, commission, independent establishment, corporation, wholly or partly owned by the United States of America which is an instrumentality of the United States, or any board, bureau, division, service, office, officer, authority, administration, or other establishment in the executive branch of the Government.

“License”, except where otherwise specified, means a license for byproduct material issued pursuant to the rules in Articles 3, 5, 7, and 15 of this chapter.

“License issuing authority” means the licensing agency that issued the license, i.e. the Agency, U.S. Nuclear Regulatory Commission, or the appropriate agency of an Agreement State.

“Local law enforcement agency (LLEA)” means a public or private organization that has been approved by a federal, state, or local government to carry firearms and make arrests, and is authorized and has the capability to provide an armed response in the jurisdiction where the licensed category 1 or category 2 quantity of radioactive material is used, stored, or transported.

“Lost or missing licensed material” means licensed material whose location is unknown. It includes material that has been shipped but has not reached its destination and whose location cannot be readily traced in the transportation system.

“Mobile device” means a piece of equipment containing licensed radioactive material that is either mounted on wheels or casters, or is otherwise equipped for moving without a need for disassembly or dismounting; or designed to be hand carried. Mobile devices do not include stationary equipment installed in a fixed location.

“Movement control center” means an operations center that is remote from transport activity and that maintains position information on the movement of radioactive material, receives reports of attempted attacks or thefts, provides a means for reporting these and other problems to appropriate agencies and can request and coordinate appropriate aid.

“No-later-than arrival time” means the date and time that the shipping licensee and receiving licensee have established as the time at which an investigation will be initiated if the shipment has not arrived at the receiving facility. The no-later-than arrival time may not be more than 6 hours after the estimated arrival time for shipments of category 2 quantities of radioactive material.

“Person” means:

Any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, Government agency other than the Commission or the DOE (except that the Department shall be considered a person within the meaning of the rules in 10 CFR chapter I to the extent that its facilities and activities are subject to the licensing and related regulatory authority of the Commission under section 202 of the Energy Reorganization Act of 1974 (88 Stat. 1244), the Uranium Mill Tailings Radiation Control Act of 1978 (92 Stat. 3021), the Nuclear Waste Policy Act of 1982 (96 Stat. 2201), and section 3(b)(2) of the Low-Level Radioactive Waste Policy Amendments Act of 1985 (99 Stat. 1842), any State or any political subdivision of or any political entity within a State, any foreign government or nation or any political subdivision of any such government or nation, or other entity; and

Any legal successor, representative, agent, or agency of the foregoing.

“Reviewing official” means the individual who shall make the trustworthiness and reliability determination of an individual to determine whether the individual may have, or continue to have, unescorted access to the category 1 or category 2 quantities of radioactive materials that are possessed by the licensee.

“Sabotage” means deliberate damage, with malevolent intent, to a category 1 or category 2 quantity of radioactive material, a device that contains a category 1 or category 2 quantity of radioactive material, or the components of the security system.

“Safe haven” means a readily recognizable and readily accessible site at which security is present or from which, in the event of an emergency, the transport crew can notify and wait for the local law enforcement authorities.

“Security zone” means any temporary or permanent area determined and established by the licensee for the physical protection of category 1 or category 2 quantities of radioactive material.



“State” means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

“Telemetric position monitoring system” means a data transfer system that captures information by instrumentation and/or measuring devices about the location and status of a transport vehicle or package between the departure and destination locations.

“Trustworthiness and reliability” means characteristics of an individual considered dependable in judgment, character, and performance, such that unescorted access to category 1 or category 2 quantities of radioactive material by that individual does not constitute an unreasonable risk to the public health and safety or security. A determination of trustworthiness and reliability for this purpose is based upon the results from a background investigation.

“Unescorted access” means solitary access to an aggregated category 1 or category 2 quantity of radioactive material or the devices that contain the material.

“United States” when used in a geographical sense, includes Puerto Rico and all territories and possessions of the United States.

R12-1-1906. Reserved

R12-1-1907. Communications

Except where otherwise specified or covered under licensing program as provided in this chapter, all communications and reports concerning the rules in this Article may be sent as follows:

- A.** By mail addressed to: ATTN: Arizona Radiation Regulatory Agency; Radioactive Materials Program; 4814 South 40th Street, Phoenix, Arizona 85040;
- B.** By hand delivery to the Agencies’ offices at 4814 South 40th Street, Phoenix, Arizona 85040;
- C.** Where practicable, by electronic submission, for example, Electronic Information Exchange, or CD-ROM. Electronic submissions shall be made in a manner that enables the Agency to receive, read, authenticate, distribute, and archive the submission, and process and retrieve it a single page at a time. Electronic submissions can be by visiting the Agency’s Website at <http://www.azrra.gov> and selecting specific RAM (Radioactive Material) Staff contact information or by email to ram@azrra.gov.

R12-1-1908. Reserved

R12-1-1909. Interpretations

Except as specifically authorized by the Agency in writing, no interpretations of the meaning of the rules in this Article by any officer or employee of the Agency other than a written interpretation by the Arizona Assistant Attorney General counsel assigned to the Agency will be recognized as binding upon the Agency.

R12-1-1910. Reserved

R12-1-1911. Specific Exemptions

- A.** The Agency may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the rules in this Article as it determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.
- B.** Any licensee's NRC-licensed activities are exempt from the requirements of R12-1-1921 through R12-1-1957 of this Article to the extent that its activities are included in a security plan required by 10 CFR part 73 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
- C.** A licensee that possesses radioactive waste that contains category 1 or category 2 quantities of radioactive material is exempt from the requirements of R12-1-1921 through R12-1-1981 of this Article, except that any radioactive waste that contains discrete sources, ion-exchange resins, or activated material that weighs less than 2,000 kg (4,409 lbs.) is not exempt from the requirements of this Article. The licensee shall implement the following requirements to secure the radioactive waste:
 - 1.** Use continuous physical barriers that allow access to the radioactive waste only through established access control points;
 - 2.** Use a locked door or gate with monitored alarm at the access control point;
 - 3.** Assess and respond to each actual or attempted unauthorized access to determine whether an actual or attempted theft, sabotage, or diversion occurred; and
 - 4.** Immediately notify the LLEA and request an armed response from the LLEA upon determination that there was an actual or attempted theft, sabotage, or diversion of the radioactive waste that contains category 1 or category 2 quantities of radioactive material.

R12-1-1912. Reserved

R12-1-1913. Reserved

R12-1-1914. Reserved

R12-1-1915. Reserved

R12-1-1916. Reserved



R12-1-1917. Reserved

R12-1-1918. Reserved

R12-1-1919. Reserved

R12-1-1920. Reserved

R12-1-1921. Personnel Access Authorization Requirements for Category 1 or Category 2 Quantities of Radioactive Material

A. General:

1. Each licensee that possesses an aggregated quantity of radioactive material at or above the category 2 threshold shall establish, implement, and maintain its access authorization program in accordance with the requirements of this Article.
2. An applicant for a new license and each licensee that would become newly subject to the requirements of this Article upon application for modification of its license shall implement the requirements of this Article, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material.
3. Any licensee that has not previously implemented the Security Orders or been subject to the provisions of R12-1-1921 through R12-1-1933 shall implement the provisions of R12-1-1921 through R12-1-1933 before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold.

B. General performance objective: The licensee's access authorization program shall ensure that the individuals specified in paragraph (C)(1) of this section are trustworthy and reliable.

C. Applicability:

1. Licensees shall subject the following individuals to an access authorization program:
 - a. Any individual whose assigned duties require unescorted access to category 1 or category 2 quantities of radioactive material or to any device that contains the radioactive material; and
 - b. Reviewing officials.
2. Licensees need not subject the categories of individuals listed in R12-1-1929(A) to the investigation elements of the access authorization program.
3. Licensees shall approve for unescorted access to category 1 or category 2 quantities of radioactive material only those individuals with job duties that require unescorted access to category 1 or category 2 quantities of radioactive material.
4. Licensees may include individuals in the access authorization program under R12-1-1921 through R12-1-1933 and needing access to safeguards information-modified handling under 10 CFR part 73 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

R12-1-1922. Reserved

R12-1-1923. Access Authorization Program Requirements

A. Granting unescorted access authorization:

1. Licensees shall implement the requirements of this Article for granting initial or reinstated unescorted access authorization.
2. Individuals who have been determined to be trustworthy and reliable shall also complete the security training required by R12-1-1943(C) before being allowed unescorted access to category 1 or category 2 quantities of radioactive material.

B. Reviewing officials:

1. Reviewing officials are the only individuals who may make trustworthiness and reliability determinations that allow individuals to have unescorted access to category 1 or category 2 quantities of radioactive materials possessed by the licensee.
2. Each licensee shall name one or more individuals to be reviewing officials. After completing the background investigation on the reviewing official, the licensee shall provide under oath or affirmation, a certification that the reviewing official is deemed trustworthy and reliable by the licensee. The fingerprints of the named reviewing official shall be taken by a law enforcement agency, Federal or State agencies that provide fingerprinting services to the public, or commercial fingerprinting services authorized by a State to take fingerprints. The licensee shall recertify that the reviewing official is deemed trustworthy and reliable every 10 years in accordance with R12-1-1925(C).
3. Reviewing officials shall be permitted to have unescorted access to category 1 or category 2 quantities of radioactive materials or access to safeguards information or safeguards information-modified handling, if the licensee possesses safeguards information or safeguards information-modified handling. Reviewing officials permitted unescorted access to category 1 or category 2 quantities of radioactive materials shall receive appropriate radiation safety training initially and at a frequency not to exceed 12 months. The licensee shall maintain records of the initial and refresher training for three years from the date of training for Agency review.
4. Reviewing officials cannot approve other individuals to act as reviewing officials.
5. A reviewing official does not need to undergo a new background investigation before being named by the licensee as the reviewing official if:



- a. The individual has undergone a background investigation that included fingerprinting and an FBI criminal history records check and has been determined to be trustworthy and reliable by the licensee; or
 - b. The individual is subject to a category listed in R12-1-1929(A).
- C. Informed consent:**
1. Licensees may not initiate a background investigation without the informed and signed consent of the subject individual. This consent shall include authorization to share personal information with other individuals or organizations as necessary to complete the background investigation. Before a final adverse determination, the licensee shall provide the individual with an opportunity to correct any inaccurate or incomplete information that is developed during the background investigation. Licensees do not need to obtain signed consent from those individuals that meet the requirements of R12-1-1925(B). A signed consent shall be obtained prior to any reinvestigation.
 2. The subject individual may withdraw his or her consent at any time. Licensees shall inform the individual that:
 - a. If an individual withdraws his or her consent, the licensee may not initiate any elements of the background investigation that were not in progress at the time the individual withdrew his or her consent; and
 - b. The withdrawal of consent for the background investigation is sufficient cause for denial or termination of unescorted access authorization.
- D. Personal history disclosure:** Any individual who is applying for unescorted access authorization shall disclose the personal history information that is required by the licensee's access authorization program for the reviewing official to make a determination of the individual's trustworthiness and reliability. Refusal to provide, or the falsification of, any personal history information required by this Article is sufficient cause for denial or termination of unescorted access.
- E. Determination basis:**
1. The reviewing official shall determine whether to permit, deny, unfavorably terminate, maintain, or administratively withdraw an individual's unescorted access authorization based on an evaluation of all of the information collected to meet the requirements of this Article.
 2. The reviewing official may not permit any individual to have unescorted access until the reviewing official has evaluated all of the information collected to meet the requirements of this Article and determined that the individual is trustworthy and reliable. The reviewing official may deny unescorted access to any individual based on information obtained at any time during the background investigation.
 3. The licensee shall document the basis for concluding whether or not there is reasonable assurance that an individual is trustworthy and reliable.
 4. The reviewing official may terminate or administratively withdraw an individual's unescorted access authorization based on information obtained after the background investigation has been completed and the individual granted unescorted access authorization.
 5. Licensees shall maintain a list of persons currently approved for unescorted access authorization. When a licensee determines that a person no longer requires unescorted access or meets the access authorization requirement, the licensee shall remove the person from the approved list as soon as possible, but no later than 7 working days, and take prompt measures to ensure that the individual is unable to have unescorted access to the material.
- F. Procedures:** Licensees shall develop, implement, and maintain written procedures for implementing the access authorization program. The procedures shall include provisions for the notification of individuals who are denied unescorted access. The procedures shall include provisions for the review, at the request of the affected individual, of a denial or termination of unescorted access authorization. The procedures shall contain a provision to ensure that the individual is informed of the grounds for the denial or termination of unescorted access authorization and allow the individual an opportunity to provide additional relevant information.
- G. Right to correct and complete information:**
1. Prior to any final adverse determination, licensees shall provide each individual subject to this Article with the right to complete, correct, and explain information obtained as a result of the licensee's background investigation. Confirmation of receipt by the individual of this notification shall be maintained by the licensee for a period of 1 year from the date of the notification.
 2. If, after reviewing his or her criminal history record, an individual believes that it is incorrect or incomplete in any respect and wishes to change, correct, update, or explain anything in the record, the individual may initiate challenge procedures. These procedures include direct application by the individual challenging the record to the law enforcement agency that contributed the questioned information or a direct challenge as to the accuracy or completeness of any entry on the criminal history record to the Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Division, ATTN: SCU, Mod. D-2, 1000 Custer Hollow Road, Clarksburg, WV 26306 as set forth in 28 CFR 16.30 through 16.34. In the latter case, the Federal Bureau of Investigation (FBI) will forward the challenge to the agency that submitted the data, and will request that the agency verify or correct the challenged entry. Upon receipt of an official communication directly from the agency that contributed the original information, the FBI Identification Division makes any changes necessary in accordance with the information supplied by that agency. Licensees shall provide at least 10 days for an individual to initiate action to challenge the results of an FBI criminal history records check after the record being made available for his or her review. The licensee may make a final adverse determination based upon the criminal history records only after receipt of the FBI's confirmation or correction of the record.



H. Records:

1. The licensee shall retain documentation regarding the trustworthiness and reliability of individual employees for 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.
2. The licensee shall retain a copy of the current access authorization program procedures as a record for 3 years after the procedure is no longer needed. If any portion of the procedure is superseded, the licensee shall retain the superseded material for 3 years after the record is superseded.
3. The licensee shall retain the list of persons approved for unescorted access authorization for 3 years after the list is superseded or replaced.

R12-1-1924. Reserved

R12-1-1925. Background Investigations

A. Initial investigation: Before allowing an individual unescorted access to category 1 or category 2 quantities of radioactive material or to the devices that contain the material, licensees shall complete a background investigation of the individual seeking unescorted access authorization. The scope of the investigation shall encompass at least the 7 years preceding the date of the background investigation or since the individual's eighteenth birthday, whichever is shorter. The background investigation shall include at a minimum:

1. Fingerprinting and an FBI identification and criminal history records check in accordance with R12-1-1927;
2. Verification of true identity. Licensees shall verify the true identity of the individual who is applying for unescorted access authorization to ensure that the applicant is who he or she claims to be. A licensee shall review official identification documents (e.g., driver's license; passport; government identification; certificate of birth issued by the state, province, or country of birth) and compare the documents to personal information data provided by the individual to identify any discrepancy in the information. Licensees shall document the type, expiration, and identification number of the identification document, or maintain a photocopy of identifying documents on file in accordance with R12-1-1931. Licensees shall certify in writing that the identification was properly reviewed, and shall maintain the certification and all related documents for review upon inspection;
3. Employment history verification. Licensees shall complete an employment history verification, including military history. Licensees shall verify the individual's employment with each previous employer for the most recent 7 years before the date of application;
4. Verification of education. Licensees shall verify that the individual participated in the education process during the claimed period;
5. Character and reputation determination. Licensees shall complete reference checks to determine the character and reputation of the individual who has applied for unescorted access authorization. Unless other references are not available, reference checks may not be conducted with any person who is known to be a close member of the individual's family, including but not limited to the individual's spouse, parents, siblings, or children, or any individual who resides in the individual's permanent household. Reference checks under this section shall be limited to whether the individual has been and continues to be trustworthy and reliable;
6. The licensee shall also, to the extent possible, obtain independent information to corroborate that provided by the individual (e.g., seek references not supplied by the individual); and
7. If a previous employer, educational institution, or any other entity with which the individual claims to have been engaged fails to provide information or indicates an inability or unwillingness to provide information within a time frame deemed appropriate by the licensee but at least after 10 business days of the request or if the licensee is unable to reach the entity, the licensee shall document the refusal, unwillingness, or inability in the record of investigation; and attempt to obtain the information from an alternate source.

B. Grandfathering:

1. Individuals who have been determined to be trustworthy and reliable for unescorted access to category 1 or category 2 quantities of radioactive material under the Fingerprint Orders may continue to have unescorted access to category 1 and category 2 quantities of radioactive material without further investigation. These individuals shall be subject to the reinvestigation requirement.
2. Individuals who have been determined to be trustworthy and reliable under the provisions of 10 CFR part 73 revised January 1, 2015, incorporated by reference, available under R12-1-101, and containing no future editions or amendments; or the security orders for access to safeguards information, safeguards information-modified handling, or risk-significant material may have unescorted access to category 1 and category 2 quantities of radioactive material without further investigation. The licensee shall document that the individual was determined to be trustworthy and reliable under the provisions of 10 CFR part 73 revised January 1, 2015, incorporated by reference, available under R12-1-101, and containing no future editions or amendments; or a security order. Security order, in this context, refers to any order that was issued by the NRC that required fingerprints and an FBI criminal history records check for access to safeguards information, safeguards information-modified handling, or risk significant material such as special nuclear material or large quantities of uranium hexafluoride. These individuals shall be subject to the reinvestigation requirement.

C. Re-investigations: Licensees shall conduct a reinvestigation every 10 years for any individual with unescorted access to



category 1 or category 2 quantities of radioactive material. The reinvestigation shall consist of fingerprinting and an FBI identification and criminal history records check in accordance with R12-1-1927. The re-investigations shall be completed within 10 years of the date on which these elements were last completed.

R12-1-1926. Reserved

R12-1-1927. Requirements for Criminal History Records Checks of Individuals Granted Unescorted Access to Category 1 or Category 2 Quantities of Radioactive Material

A. General performance objective and requirements:

1. Except for those individuals listed in R12-1-1929 and those individuals grandfathered under R12-1-1925(B), each licensee subject to the provisions of this Article shall fingerprint each individual who is to be permitted unescorted access to category 1 or category 2 quantities of radioactive material. Licensees shall transmit all collected fingerprints to the Agency for transmission to the FBI. The licensee shall use the information received from the FBI as part of the required background investigation to determine whether to grant or deny further unescorted access to category 1 or category 2 quantities of radioactive materials for that individual.
2. The licensee shall notify each affected individual that his or her fingerprints will be used to secure a review of his or her criminal history record, and shall inform him or her of the procedures for revising the record or adding explanations to the record.
3. Fingerprinting is not required if a licensee is reinstating an individual's unescorted access authorization to category 1 or category 2 quantities of radioactive materials if:
 - a. The individual returns to the same facility that granted unescorted access authorization within 365 days of the termination of his or her unescorted access authorization; and
 - b. The previous access was terminated under favorable conditions.
4. Fingerprints do not need to be taken if an individual who is an employee of a licensee, contractor, manufacturer, or supplier has been granted unescorted access to category 1 or category 2 quantities of radioactive material, access to safeguards information, or safeguards information-modified handling by another licensee, based upon a background investigation conducted under this Article, the Fingerprint Orders, or 10 CFR part 73 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. An existing criminal history records check file may be transferred to the licensee asked to grant unescorted access in accordance with the provisions of R12-1-1931(C).
5. Licensees shall use the information obtained as part of a criminal history records check solely for the purpose of determining an individual's suitability for unescorted access authorization to category 1 or category 2 quantities of radioactive materials, access to safeguards information, or safeguards information-modified handling.

B. Prohibitions:

1. Licensees may not base a final determination to deny an individual unescorted access authorization to category 1 or category 2 quantities of radioactive material solely on the basis of information received from the FBI involving:
 - a. An arrest more than 1 year old for which there is no information of the disposition of the case; or
 - b. An arrest that resulted in dismissal of the charge or an acquittal.
2. Licensees may not use information received from a criminal history records check obtained under this section in a manner that would infringe upon the rights of any individual under the First Amendment to the Constitution of the United States, nor shall licensees use the information in any way that would discriminate among individuals on the basis of race, religion, national origin, gender, or age.

C. Procedures for processing of fingerprint checks:

1. For the purpose of complying with this Article, licensees shall use an appropriate method listed in 10 CFR 37.7 revised January 1, 2015, incorporated by reference, available under R12-1-101, and containing no future editions or amendments; to submit to the U.S. Nuclear Regulatory Commission, Director, Division of Facilities and Security, 11545 Rockville Pike, ATTN: Criminal History Program/Mail Stop TWB-05 B32M, Rockville, Maryland 20852, one completed, legible standard fingerprint card (Form FD-258, ORIMDNRCOOOZ), electronic fingerprint scan or, where practicable, other fingerprint record for each individual requiring unescorted access to category 1 or category 2 quantities of radioactive material. Copies of these forms may be obtained by writing the Office of Information Services, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, by calling 1-630-829-9565, or by email to FORMS.Resource@nrc.gov. Guidance on submitting electronic fingerprints can be found at <http://www.nrc.gov/site-help/e-submittals.html>.
2. Fees for the processing of fingerprint checks are due upon application. Licensees shall submit payment with the application for the processing of fingerprints through corporate check, certified check, cashier's check, money order, or electronic payment, made payable to "U.S. NRC." (For guidance on making electronic payments, contact the Security Branch, Division of Facilities and Security at 301-492-3531.) Combined payment for multiple applications is acceptable. The Commission publishes the amount of the fingerprint check application fee on the NRC's public website. (To find the current fee amount, go to the Electronic Submittals page at <http://www.nrc.gov/site-help/e-submittals.html> and see the link for the Criminal History Program under Electronic Submission Systems.)
3. The U.S. Nuclear Regulatory Commission will forward to the submitting licensee all data received from the FBI as a result of the licensee's application(s) for criminal history records checks.



R12-1-1928. Reserved

R12-1-1929. Relief From Fingerprinting, Identification, and Criminal History Records Checks and Other Elements of Background Investigations for Designated Categories of Individuals Permitted Unescorted Access to Certain Radioactive Materials

- A.** Fingerprinting, and the identification and criminal history records checks required by section 149 of the Atomic Energy Act of 1954, as amended, and other elements of the background investigation are not required for the following individuals prior to granting unescorted access to category 1 or category 2 quantities of radioactive materials:
1. An employee of the U.S. Nuclear Regulatory Commission or of the Executive Branch of the U.S. Government who has undergone fingerprinting for a prior U.S. Government criminal history records check;
 2. A Member of Congress;
 3. An employee of a member of Congress or Congressional committee who has undergone fingerprinting for a prior U.S. Government criminal history records check;
 4. The Governor of a State or his or her designated State employee representative;
 5. Federal, State, or local law enforcement personnel;
 6. State Radiation Control Program Directors and State Homeland Security Advisors or their designated State employee representatives;
 7. Agreement State employees conducting security inspections on behalf of the NRC under an agreement executed under section 274.i. of the Atomic Energy Act;
 8. Representatives of the International Atomic Energy Agency (IAEA) engaged in activities associated with the U.S./IAEA Safeguards Agreement who have been certified by the NRC;
 9. Emergency response personnel who are responding to an emergency;
 10. Commercial vehicle drivers for road shipments of category 1 and category 2 quantities of radioactive material;
 11. Package handlers at transportation facilities such as freight terminals and railroad yards;
 12. Any individual who has an active Federal security clearance, provided that he or she makes available the appropriate documentation. Written confirmation from the agency/employer that granted the Federal security clearance or reviewed the criminal history records check shall be provided to the licensee. The licensee shall retain this documentation for a period of 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material; and
 13. Any individual employed by a service provider licensee for which the service provider licensee has conducted the background investigation for the individual and approved the individual for unescorted access to category 1 or category 2 quantities of radioactive material. Written verification from the service provider shall be provided to the licensee. The licensee shall retain the documentation for a period of 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.
- B.** Fingerprinting, and the identification and criminal history records checks required by section 149 of the Atomic Energy Act of 1954, as amended, are not required for an individual who has had a favorably adjudicated U.S. Government criminal history records check within the last 5 years, under a comparable U.S. Government program involving fingerprinting and an FBI identification and criminal history records check provided that he or she makes available the appropriate documentation. Written confirmation from the agency/employer that reviewed the criminal history records check shall be provided to the licensee. The licensee shall retain this documentation for a period of 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material. These programs include, but are not limited to:
1. National Agency Check;
 2. Transportation Worker Identification Credentials (TWIC) under 49 CFR part 1572;
 3. Bureau of Alcohol, Tobacco, Firearms, and Explosives background check and clearances under 27 CFR part 555;
 4. Health and Human Services security risk assessments for possession and use of select agents and toxins under 42 CFR part 73;
 5. Hazardous Material security threat assessment for hazardous material endorsement to commercial driver's license under 49 CFR part 1572; and
 6. Customs and Border Protection's Free and Secure Trade (FAST) Program.

R12-1-1930. Reserved

R12-1-1931. Protection of Information

- A.** Each licensee who obtains background information on an individual under this Article shall establish and maintain a system of files and written procedures for protection of the record and the personal information from unauthorized disclosure.
- B.** The licensee may not disclose the record or personal information collected and maintained to persons other than the subject individual, his or her representative, or to those who have a need to have access to the information in performing assigned duties in the process of granting or denying unescorted access to category 1 or category 2 quantities of radioactive material, safeguards information, or safeguards information-modified handling. No individual authorized to have access to the information may disseminate the information to any other individual who does not have a need to know.
- C.** The personal information obtained on an individual from a background investigation may be provided to another licensee:



1. Upon the individual's written request to the licensee holding the data to disseminate the information contained in his or her file; and
 2. The recipient licensee verifies information such as name, date of birth, social security number, gender, and other applicable physical characteristics.
- D.** The licensee shall make background investigation records obtained under this Article available for examination by an authorized representative of the Agency to determine compliance with the rules and laws.
- E.** The licensee shall retain all fingerprint and criminal history records (including data indicating no record) received from the FBI, or a copy of these records if the individual's file has been transferred, on an individual for 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

R12-1-1932. Reserved

R12-1-1933. Access Authorization Program Review

- A.** Each licensee shall be responsible for the continuing effectiveness of the access authorization program. Each licensee shall ensure that access authorization programs are reviewed to confirm compliance with the requirements of this Article and that comprehensive actions are taken to correct any noncompliance that is identified. The review program shall evaluate all program performance objectives and requirements. Each licensee shall periodically (at least annually) review the access program content and implementation.
- B.** The results of the reviews, along with any recommendations, shall be documented. Each review report shall identify conditions that are adverse to the proper performance of the access authorization program, the cause of the condition(s), and, when appropriate, recommend corrective actions, and corrective actions taken. The licensee shall review the findings and take any additional corrective actions necessary to preclude repetition of the condition, including reassessment of the deficient areas where indicated.
- C.** Review records shall be maintained for 3 years.

R12-1-1934. Reserved

R12-1-1935. Reserved

R12-1-1936. Reserved

R12-1-1937. Reserved

R12-1-1938. Reserved

R12-1-1939. Reserved

R12-1-1940. Reserved

R12-1-1941. Security Program

A. Applicability:

1. Each licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material shall establish, implement, and maintain a security program in accordance with the requirements of this Article.
 2. An applicant for a new license and each licensee that would become newly subject to the requirements of this Article upon application for modification of its license shall implement the requirements of this Article, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material.
 3. Any licensee that has not previously implemented the Security Orders or been subject to the provisions of R12-1-1941 through R12-1-1957 shall provide written notification to the Agency, as specified in R12-1-1907, at least 90 days before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold.
- B.** General performance objective: Each licensee shall establish, implement, and maintain a security program that is designed to monitor and, without delay, detect, assess, and respond to an actual or attempted unauthorized access to category 1 or category 2 quantities of radioactive material.
- C.** Program features: Each licensee's security program shall include the program features, as appropriate, described in R12-1-1943, R12-1-1945, R12-1-1947, R12-1-1949, R12-1-1951, R12-1-1953, and R12-1-1955.

R12-1-1942. Reserved

R12-1-1943. General Security Program Requirements

A. Security plan:

1. Each licensee identified in R12-1-1941(A) shall develop a written security plan specific to its facilities and operations. The purpose of the security plan is to establish the licensee's overall security strategy to ensure the integrated and effective functioning of the security program required by this Article. The security plan shall, at a minimum:
 - a. Describe the measures and strategies used to implement the requirements of this Article; and
 - b. Identify the security resources, equipment, and technology used to satisfy the requirements of this Article.
2. The security plan shall be reviewed and approved by the individual with overall responsibility for the security program.
3. A licensee shall revise its security plan as necessary to ensure the effective implementation of Agency requirements. The licensee shall ensure that:
 - a. The revision has been reviewed and approved by the individual with overall responsibility for the security program; and
 - b. The affected individuals are instructed on the revised plan before the changes are implemented.



4. The licensee shall retain a copy of the current security plan as a record for 3 years after the security plan is no longer required. If any portion of the plan is superseded, the licensee shall retain the superseded material for 3 years after the record is superseded.
- B. Implementing procedures:**
 1. The licensee shall develop and maintain written procedures that document how the requirements of this Article and the security plan will be met.
 2. The implementing procedures and revisions to these procedures shall be approved in writing by the individual with overall responsibility for the security program.
 3. The licensee shall retain a copy of the current procedure as a record for 3 years after the procedure is no longer needed. Superseded portions of the procedure shall be retained for 3 years after the record is superseded.
- C. Training:**
 1. Each licensee shall conduct training to ensure that those individuals implementing the security program possess and maintain the knowledge, skills, and abilities to carry out their assigned duties and responsibilities effectively. The training shall include instruction in:
 - a. The licensee's security program and procedures to secure category 1 or category 2 quantities of radioactive material, and in the purposes and functions of the security measures employed;
 - b. The responsibility to report promptly to the licensee any condition that causes or may cause a violation of Agency requirements;
 - c. The responsibility of the licensee to report promptly to the local law enforcement agency and licensee any actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material; and
 - d. The appropriate response to security alarms.
 2. In determining those individuals who shall be trained on the security program, the licensee shall consider each individual's assigned activities during authorized use and response to potential situations involving actual or attempted theft, diversion, or sabotage of category 1 or category 2 quantities of radioactive material. The extent of the training shall be commensurate with the individual's potential involvement in the security of category 1 or category 2 quantities of radioactive material.
 3. Refresher training shall be provided at a frequency not to exceed 12 months and when significant changes have been made to the security program. This training shall include:
 - a. Review of the training requirements of paragraph (c) of this section and any changes made to the security program since the last training;
 - b. Reports on any relevant security issues, problems, and lessons learned;
 - c. Relevant results of Agency inspections; and
 - d. Relevant results of the licensee's program review and testing and maintenance.
 4. The licensee shall maintain records of the initial and refresher training for 3 years from the date of the training. The training records shall include dates of the training, topics covered, a list of licensee personnel in attendance, and related information.
- D. Protection of information:**
 1. Licensees authorized to possess category 1 or category 2 quantities of radioactive material shall limit access to and unauthorized disclosure of their security plan, implementing procedures, and the list of individuals that have been approved for unescorted access.
 2. Efforts to limit access shall include the development, implementation, and maintenance of written policies and procedures for controlling access to, and for proper handling and protection against unauthorized disclosure of, the security plan and implementing procedures.
 3. Before granting an individual access to the security plan or implementing procedures, licensees shall:
 - a. Evaluate an individual's need to know the security plan or implementing procedures; and
 - b. If the individual has not been authorized for unescorted access to category 1 or category 2 quantities of radioactive material, safeguards information, or safeguards information-modified handling, the licensee shall complete a background investigation to determine the individual's trustworthiness and reliability. A trustworthiness and reliability determination shall be conducted by the reviewing official and shall include the background investigation elements contained in R12-1-1925(A)(2) through (A)(7).
 4. Licensees need not subject the following individuals to the background investigation elements for protection of information:
 - a. The categories of individuals listed in R12-1-1929(A); or
 - b. Security service provider employees, provided written verification that the employee has been determined to be trustworthy and reliable, by the required background investigation in R12-1-1925(A)(2) through (A)(7), has been provided by the security service provider.
 5. The licensee shall document the basis for concluding that an individual is trustworthy and reliable and should be granted access to the security plan or implementing procedures.



6. Licensees shall maintain a list of persons currently approved for access to the security plan or implementing procedures. When a licensee determines that a person no longer needs access to the security plan or implementing procedures or no longer meets the access authorization requirements for access to the information, the licensee shall remove the person from the approved list as soon as possible, but no later than 7 working days, and take prompt measures to ensure that the individual is unable to obtain the security plan or implementing procedures.
7. When not in use, the licensee shall store its security plan and implementing procedures in a manner to prevent unauthorized access. Information stored in non-removable electronic form shall be password protected.
8. The licensee shall retain as a record for 3 years after the document is no longer needed:
 - a. A copy of the information protection procedures; and
 - b. The list of individuals approved for access to the security plan or implementing procedures.

R12-1-1944. Reserved

R12-1-1945. Local Law Enforcement Agency (LLEA) Coordination

- A.** A licensee subject to this Article shall coordinate, to the extent practicable, with an LLEA for responding to threats to the licensee's facility, including any necessary armed response. The information provided to the LLEA shall include:
1. A description of the facilities and the category 1 and category 2 quantities of radioactive materials along with a description of the licensee's security measures that have been implemented to comply with this Article; and
 2. A notification that the licensee will request a timely armed response by the LLEA to any actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of material.
- B.** The licensee shall notify the Agency listed in R12-1-1907 of this Article within 3 business days if:
1. The LLEA has not responded to the request for coordination within 60 days of the coordination request; or
 2. The LLEA notifies the licensee that the LLEA does not plan to participate in coordination activities.
- C.** The licensee shall document its efforts to coordinate with the LLEA. The documentation shall be kept for 3 years.
- D.** The licensee shall coordinate with the LLEA at least every 12 months, or when changes to the facility design or operation adversely affect the potential vulnerability of the licensee's material to theft, sabotage, or diversion.

R12-1-1946. Reserved

R12-1-1947. Security Zones

- A.** Licensees shall ensure that all aggregated category 1 and category 2 quantities of radioactive material are used or stored within licensee established security zones. Security zones may be permanent or temporary.
- B.** Temporary security zones shall be established as necessary to meet the licensee's transitory or intermittent business activities, such as periods of maintenance, source delivery, and source replacement.
- C.** Security zones shall, at a minimum, allow unescorted access only to approved individuals through:
1. Isolation of category 1 and category 2 quantities of radioactive materials by the use of continuous physical barriers that allow access to the security zone only through established access control points. A physical barrier is a natural or man-made structure or formation sufficient for the isolation of the category 1 or category 2 quantities of radioactive material within a security zone; or
 2. Direct control of the security zone by approved individuals at all times; or
 3. A combination of continuous physical barriers and direct control.
- D.** For category 1 quantities of radioactive material during periods of maintenance, source receipt, preparation for shipment, installation, or source removal or exchange, the licensee shall, at a minimum, provide sufficient individuals approved for unescorted access to maintain continuous surveillance of sources in temporary security zones and in any security zone in which physical barriers or intrusion detection systems have been disabled to allow such activities.
- E.** Individuals not approved for unescorted access to category 1 or category 2 quantities of radioactive material shall be escorted by an approved individual when in a security zone.

R12-1-1948. Reserved

R12-1-1949. Monitoring, Detection, and Assessment

- A.** Monitoring and detection:
1. Licensees shall establish and maintain the capability to continuously monitor and detect without delay all unauthorized entries into its security zones. Licensees shall provide the means to maintain continuous monitoring and detection capability in the event of a loss of the primary power source, or provide for an alarm and response in the event of a loss of this capability to continuously monitor and detect unauthorized entries.
 2. Monitoring and detection shall be performed by:
 - a. A monitored intrusion detection system that is linked to an onsite or offsite central monitoring facility; or
 - b. Electronic devices for intrusion detection alarms that will alert nearby facility personnel; or
 - c. A monitored video surveillance system; or
 - d. Direct visual surveillance by approved individuals located within the security zone; or
 - e. Direct visual surveillance by a licensee designated individual located outside the security zone.
 3. A licensee subject to this Article shall also have a means to detect unauthorized removal of the radioactive material from the security zone. This detection capability shall provide:
 - a. For category 1 quantities of radioactive material, immediate detection of any attempted unauthorized removal of the radioactive material from the security zone. Such immediate detection capability shall be provided by:



- i. Electronic sensors linked to an alarm; or
 - ii. Continuous monitored video surveillance; or
 - iii. Direct visual surveillance.
- b. For category 2 quantities of radioactive material, weekly verification through physical checks, tamper indicating devices, use, or other means to ensure that the radioactive material is present.
- B.** Assessment: Licensees shall immediately assess each actual or attempted unauthorized entry into the security zone to determine whether the unauthorized access was an actual or attempted theft, sabotage, or diversion.
- C.** Personnel communications and data transmission: For personnel and automated or electronic systems supporting the licensee's monitoring, detection, and assessment systems, licensees shall:
 - 1. Maintain continuous capability for personnel communication and electronic data transmission and processing among site security systems; and
 - 2. Provide an alternative communication capability for personnel, and an alternative data transmission and processing capability, in the event of a loss of the primary means of communication or data transmission and processing. Alternative communications and data transmission systems may not be subject to the same failure modes as the primary systems.
- D.** Response: Licensees shall immediately respond to any actual or attempted unauthorized access to the security zones, or actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material at licensee facilities or temporary job sites. For any unauthorized access involving an actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material, the licensee's response shall include requesting, without delay, an armed response from the LLEA.

R12-1-1950. Reserved

R12-1-1951. Maintenance and Testing

- A.** Each licensee subject to this R12-1-1941 through R12-1-1957 shall implement a maintenance and testing program to ensure that intrusion alarms, associated communication systems, and other physical components of the systems used to secure or detect unauthorized access to radioactive material are maintained in operable condition and are capable of performing their intended function when needed. The equipment relied on to meet the security requirements of this part shall be inspected and tested for operability and performance at the manufacturer's suggested frequency. If there is no suggested manufacturer's suggested frequency, the testing shall be performed at least annually, not to exceed 12 months.
- B.** The licensee shall maintain records on the maintenance and testing activities for 3 years. The record shall include:
 - 1. The date of activity;
 - 2. Type of activity performed;
 - 3. A list of the equipment involved;
 - 4. The results of the activity;
 - 5. The name of the individual that conducted the activity;
 - 6. The repair or maintenance (if applicable) that was performed.

R12-1-1952. Reserved

R12-1-1953. Requirements for Mobile Devices

- Each licensee that possesses mobile devices containing category 1 or category 2 quantities of radioactive material shall:
- A.** Have two independent physical controls that form tangible barriers to secure the material from unauthorized removal when the device is not under direct control and constant surveillance by the licensee; and
 - B.** For devices in or on a vehicle or trailer, unless the health and safety requirements for a site prohibit the disabling of the vehicle, the licensee shall utilize a method to disable the vehicle or trailer when not under direct control and constant surveillance by the licensee. Licensees shall not rely on the removal of an ignition key to meet this requirement.

R12-1-1954. Reserved

R12-1-1955. Security Program Review

- A.** Each licensee shall be responsible for the continuing effectiveness of the security program. Each licensee shall ensure that the security program is reviewed to confirm compliance with the requirements of this Article and that comprehensive actions are taken to correct any noncompliance that is identified. The review shall include the radioactive material security program content and implementation. Each licensee shall periodically (at least annually) review the security program content and implementation.
- B.** The results of the review, along with any recommendations, shall be documented. Each review report shall identify conditions that are adverse to the proper performance of the security program, the cause of the condition(s), and, when appropriate, recommend corrective actions, and corrective actions taken. The licensee shall review the findings and take any additional corrective actions necessary to preclude repetition of the condition, including reassessment of the deficient areas where indicated.
- C.** The licensee shall maintain the review documentation for 3 years.

R12-1-1956. Reserved

R12-1-1957. Reporting of Events

- A.** The licensee shall immediately notify the LLEA after determining that an unauthorized entry resulted in an actual or attempted theft, sabotage, or diversion of a category 1 or category 2 quantity of radioactive material. As soon as possible



after initiating a response, but not at the expense of causing delay or interfering with the LLEA response to the event, the licensee shall notify the Agency. Notification shall be to a live person, a voice mail is not considered adequate notification. In no case shall the notification to the Agency be later than 4 hours after the discovery of any attempted or actual theft, sabotage, or diversion.

- B.** The licensee shall assess any suspicious activity related to possible theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material and notify the LLEA as appropriate. As soon as possible but not later than 4 hours after notifying the LLEA, the licensee shall notify the Agency.
- C.** The initial telephonic notification required by subsection (A) of this section shall be followed within a period of 30 days by a written report submitted to the Agency by an appropriate method listed in R12-1-1907. The report shall include sufficient information for Agency analysis and evaluation, including identification of any necessary corrective actions to prevent future instances.

R12-1-1958. Reserved

R12-1-1959. Reserved

R12-1-1960. Reserved

R12-1-1961. Reserved

R12-1-1962. Reserved

R12-1-1963. Reserved

R12-1-1964. Reserved

R12-1-1965. Reserved

R12-1-1966. Reserved

R12-1-1967. Reserved

R12-1-1968. Reserved

R12-1-1969. Reserved

R12-1-1970. Reserved

R12-1-1971. **Additional Requirements for Transfer of Category 1 and Category 2 Quantities of Radioactive Material**

A licensee transferring a category 1 or category 2 quantity of radioactive material to a licensee of the Agency, NRC, or an Agreement State shall meet the license verification provisions listed below instead of those listed in sections of this chapter:

1. Any licensee transferring category 1 quantities of radioactive material to a licensee of the Agency, NRC, or an Agreement State, prior to conducting such transfer, shall verify with the Agency's license verification system or the license issuing authority that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred and that the licensee is authorized to receive radioactive material at the location requested for delivery. If the verification is conducted by contacting the license issuing authority, the transferor shall document the verification. For transfers within the same organization, the licensee does not need to verify the transfer.
2. Any licensee transferring category 2 quantities of radioactive material to a licensee of the Agency, NRC, or an Agreement State, prior to conducting such transfer, shall verify with the Agency's license verification system or the license issuing authority that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred. If the verification is conducted by contacting the license issuing authority, the transferor shall document the verification. For transfers within the same organization, the licensee does not need to verify the transfer.
3. In an emergency where the licensee cannot reach the license issuing authority and the license verification system is nonfunctional, the licensee may accept a written certification by the transferee that it is authorized by license to receive the type, form, and quantity of radioactive material to be transferred. The certification shall include the license number, current revision number, issuing agency, expiration date, and for a category 1 shipment the authorized address. The licensee shall keep a copy of the certification. The certification shall be confirmed by use of the NRC's license verification system or by contacting the license issuing authority by the end of the next business day.
4. The transferor shall keep a copy of the verification documentation as a record for 3 years.

R12-1-1972. Reserved

R12-1-1973. **Applicability of Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Transit**

- A.** For shipments of category 1 quantities of radioactive material, each shipping licensee shall comply with the requirements for physical protection contained in Sections R12-1-1975(A) and (E); R12-1-1977; R12-1-1979(A)(1), (B)(1), and (C); and R12-1-1981(A), (C), (E), (G) and (H).
- B.** For shipments of category 2 quantities of radioactive material, each shipping licensee shall comply with the requirements for physical protection contained in R12-1-1975(B) through (E); R12-1-1979(A)(2), (A)(3), (B)(2), and (C); and R12-1-1981(B), (D), (F), (G), and (H). For those shipments of category 2 quantities of radioactive material that meet the criteria of Article 15 of this Chapter, the shipping licensee shall also comply with the advance notification provisions of R12-1-1508 or R12-1-1512 as appropriate.



- C. The shipping licensee shall be responsible for meeting the requirements of R12-1-1971 through R12-1-1981 unless the receiving licensee has agreed in writing to arrange for the in-transit physical protection required under R12-1-1971 through R12-1-1981.
- D. Each licensee that imports or exports category 1 quantities of radioactive material shall comply with the requirements for physical protection during transit contained in R12-1-1975(A)(2) and (E); R12-1-1977; R12-1-1979(A)(1), (B)(1), and (C); and R12-1-1981(A), (C), (E), (G), and (H) for the domestic portion of the shipment.
- E. Each licensee that imports or exports category 2 quantities of radioactive material shall comply with the requirements for physical protection during transit contained in R12-1-1979(A)(2), (A)(3), and (B)(2); and R12-1-1981(B), (D), (F), (G), and (H) for the domestic portion of the shipment.

R12-1-1974. Reserved

R12-1-1975. Preplanning and Coordination of Shipment of Category 1 or Category 2 Quantities of Radioactive Material

- A. Each licensee that plans to transport, or deliver to a carrier for transport, licensed material that is a category 1 quantity of radioactive material outside the confines of the licensee's facility or other place of use or storage shall:
 - 1. Preplan and coordinate shipment arrival and departure times with the receiving licensee;
 - 2. Preplan and coordinate shipment information with the governor or the governor's designee of any State through which the shipment will pass to:
 - a. Discuss the State's intention to provide law enforcement escorts; and
 - b. Identify safe havens; and
 - 3. Document the preplanning and coordination activities.
- B. Each licensee that plans to transport, or deliver to a carrier for transport, licensed material that is a category 2 quantity of radioactive material outside the confines of the licensee's facility or other place of use or storage shall coordinate the shipment no-later-than arrival time and the expected shipment arrival with the receiving licensee. The licensee shall document the coordination activities.
- C. Each licensee who receives a shipment of a category 2 quantity of radioactive material shall confirm receipt of the shipment with the originator. If the shipment has not arrived by the no-later-than arrival time, the receiving licensee shall notify the originator.
- D. Each licensee, who transports or plans to transport a shipment of a category 2 quantity of radioactive material, and determines that the shipment will arrive after the no-later-than arrival time provided pursuant to paragraph (B) of this section, shall promptly notify the receiving licensee of the new no-later-than arrival time.
- E. The licensee shall retain a copy of the documentation for preplanning and coordination and any revision thereof, as a record for 3 years.

R12-1-1976. Reserved

R12-1-1977. Advance Notification of Shipment of Category 1 Quantities of Radioactive Material

As specified in paragraphs (A) and (B) of this section, each licensee shall provide advance notification to the Agency and the governor of a State, or the governor's designee, of the shipment of licensed material in a category 1 quantity, through or across the boundary of the State, before the transport, or delivery to a carrier for transport of the licensed material outside the confines of the licensee's facility or other place of use or storage.

- 1. Procedures for submitting advance notification:
 - a. The notification shall be made to the Agency and to the office of each appropriate governor or governor's designee. The contact information, including telephone and mailing addresses, of governors and governors' designees, is available on the NRC's website at <http://nrc-stp.ornl.gov/special/designee.pdf>. A list of the contact information is also available upon request from the Director, Division of Material Safety, State, Tribal, and Rulemaking Programs, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Notifications to the Agency shall be to the Agency Director or their designee. The notification to the Agency may be made by email to ram@azrra.gov or by fax to (602) 437-0705.
 - b. A notification delivered by mail shall be postmarked at least 7 days before transport of the shipment commences at the shipping facility.
 - c. A notification delivered by any means other than mail shall reach the Agency at least 4 days before the transport of the shipment commences and shall reach the office of the governor or the governor's designee at least 4 days before transport of a shipment within or through the State.
- 2. Information to be furnished in advance notification of shipment: Each advance notification of shipment of category 1 quantities of radioactive material shall contain the following information, if available at the time of notification:
 - a. The name, address, and telephone number of the shipper, carrier, and receiver of the category 1 radioactive material;
 - b. The license numbers of the shipper and receiver;
 - c. A description of the radioactive material contained in the shipment, including the radionuclides and quantity;
 - d. The point of origin of the shipment and the estimated time and date that shipment will commence;
 - e. The estimated time and date that the shipment is expected to enter each State along the route;
 - f. The estimated time and date of arrival of the shipment at the destination; and
 - g. A point of contact, with a telephone number, for current shipment information.



3. Revision notice:
 - a. The licensee shall provide any information not previously available at the time of the initial notification, as soon as the information becomes available but not later than commencement of the shipment, to the governor of the State or the governor's designee and to the Agency's Director at the contact information available in R12-1-1907.
 - b. A licensee shall promptly notify the governor of the state or the governor's designee of any changes to the information provided in accordance with subsections (B) and (C)(1) of this section. The licensee shall also immediately notify the Agency's Director at the contact information available in R12-1-1907 of any such changes.
4. Cancellation notice: Each licensee who cancels a shipment for which advance notification has been sent shall send a cancellation notice to the governor of each State or to the governor's designee previously notified and to the Agency's Director at the contact information available in R12-1-1907. The licensee shall send the cancellation notice before the shipment would have commenced or as soon thereafter as possible. The licensee shall state in the notice that it is a cancellation and identify the advance notification that is being cancelled.
5. Records: The licensee shall retain a copy of the advance notification and any revision and cancellation notices as a record for 3 years.
6. Protection of information: State officials, State employees, and other individuals, whether or not licensees of the Agency, the NRC, or an Agreement State, who receive schedule information of the kind specified R12-1-1977(B) shall protect that information against unauthorized disclosure as specified in R12-1-1943(D) of this Article.

R12-1-1978. Reserved

R12-1-1979. Requirements for Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Shipment

A. Shipments by road:

1. Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material shall:
 - a. Ensure that movement control centers are established that maintain position information from a remote location. These control centers shall monitor shipments 24 hours a day, 7 days a week, and have the ability to communicate immediately, in an emergency, with the appropriate law enforcement agencies.
 - b. Ensure that redundant communications are established that allow the transport to contact the escort vehicle (when used) and movement control center at all times. Redundant communications may not be subject to the same interference factors as the primary communication.
 - c. Ensure that shipments are continuously and actively monitored by a telemetric position monitoring system or an alternative tracking system reporting to a movement control center. A movement control center shall provide positive confirmation of the location, status, and control over the shipment. The movement control center shall be prepared to promptly implement preplanned procedures in response to deviations from the authorized route or a notification of actual, attempted, or suspicious activities related to the theft, loss, or diversion of a shipment. These procedures will include, but not be limited to, the identification of and contact information for the appropriate LLEA along the shipment route.
 - d. Provide an individual to accompany the driver for those highway shipments with a driving time period greater than the maximum number of allowable hours of service in a 24-hour duty day as established by the Department of Transportation Federal Motor Carrier Safety Administration. The accompanying individual may be another driver.
 - e. Develop written normal and contingency procedures to address:
 - i. Notifications to the communication center and law enforcement agencies;
 - ii. Communication protocols. Communication protocols shall include a strategy for the use of authentication codes and duress codes and provisions for refueling or other stops, detours, and locations where communication is expected to be temporarily lost;
 - iii. Loss of communications; and
 - iv. Responses to an actual or attempted theft or diversion of a shipment.
 - f. Each licensee who makes arrangements for the shipment of category 1 quantities of radioactive material shall ensure that drivers, accompanying personnel, and movement control center personnel have access to the normal and contingency procedures.
2. Each licensee that transports category 2 quantities of radioactive material shall maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance.
3. Each licensee who delivers to a carrier for transport, in a single shipment, a category 2 quantity of radioactive material shall:



- a. Use carriers that have established package tracking systems. An established package tracking system is a documented, proven, and reliable system routinely used to transport objects of value. In order for a package tracking system to maintain constant control and/or surveillance, the package tracking system shall allow the shipper or transporter to identify when and where the package was last and when it should arrive at the next point of control.
- b. Use carriers that maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance; and
- c. Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

B. Shipments by rail:

- 1. Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material shall:
 - a. Ensure that rail shipments are monitored by a telemetric position monitoring system or an alternative tracking system reporting to the licensee, third-party, or railroad communications center. The communications center shall provide positive confirmation of the location of the shipment and its status. The communications center shall implement preplanned procedures in response to deviations from the authorized route or to a notification of actual, attempted, or suspicious activities related to the theft or diversion of a shipment. These procedures will include, but not be limited to, the identification of and contact information for the appropriate LLEA along the shipment route.
 - b. Ensure that periodic reports to the communications center are made at preset intervals.
- 2. Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 2 quantity of radioactive material shall:
 - a. Use carriers that have established package tracking systems. An established package tracking system is a documented, proven, and reliable system routinely used to transport objects of value. In order for a package tracking system to maintain constant control and/or surveillance, the package tracking system shall allow the shipper or transporter to identify when and where the package was last and when it should arrive at the next point of control.
 - b. Use carriers that maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance; and
 - c. Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

C. Investigations: Each licensee who makes arrangements for the shipment of category 1 quantities of radioactive material shall immediately conduct an investigation upon the discovery that a category 1 shipment is lost or missing. Each licensee who makes arrangements for the shipment of category 2 quantities of radioactive material shall immediately conduct an investigation, in coordination with the receiving licensee, of any shipment that has not arrived by the designated no-later-than arrival time.

R12-1-1980. Reserved

R12-1-1981. Reporting of Events

- A.** Within one hour of its determination that a shipment of category 1 quantities of radioactive material is lost or missing, a shipping licensee shall notify the appropriate LLEA and the Agency. The Agency shall be notified by calling (602) 255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at (602) 223-2212. The appropriate LLEA is the law enforcement agency in the area of the shipment's last confirmed location. During the investigation required by R12-1-1979(C), the shipping licensee shall provide agreed upon updates to the Agency on the status of the investigation.
- B.** Within four (4) hours of its determination that a shipment of category 2 quantities of radioactive material is lost or missing, a shipping licensee shall notify the appropriate LLEA and the Agency. The Agency shall be notified by calling (602) 255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at (602) 223-2212. If, after 24 hours of its determination that the shipment is lost or missing, the radioactive material has not been located and secured, the licensee shall immediately notify the Agency.
- C.** The shipping licensee shall notify the designated LLEA along the shipment route as soon as possible upon discovery of any actual or attempted theft or diversion of a shipment or suspicious activities related to the theft or diversion of a shipment of a category 1 quantity of radioactive material. As soon as possible after notifying the LLEA, the licensee shall notify the Agency upon discovery of any actual or attempted theft or diversion of a shipment, or any suspicious activity related to the shipment of category 1 radioactive material. The Agency shall be notified by calling (602) 255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at (602) 223-2212
- D.** The shipping licensee shall notify the Agency as soon as possible upon discovery of any actual or attempted theft or diversion of a shipment, or any suspicious activity related to the shipment, of a category 2 quantity of radioactive material. The Agency shall be notified by calling (602) 255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at (602) 223-2212.
- E.** The shipping licensee shall notify the Agency and the LLEA as soon as possible upon recovery of any lost or missing category 1 quantities of radioactive material. The Agency shall be notified by calling (602) 255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at (602) 223-2212.
- F.** The shipping licensee shall notify the Agency as soon as possible upon recovery of any lost or missing category 2 quantities of radioactive material. The Agency shall be notified by calling (602) 255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at (602) 223-2212.
- G.** The initial telephonic notification required by paragraphs (A) through (D) of this section shall be followed within a period of 30 days by a written report submitted to the Agency by an appropriate method listed in R12-1-1907. A written report is not required for notifications on suspicious activities required by paragraphs (C) and (D) of this section. The report shall set forth the following information:
 - 1. A description of the licensed material involved, including kind, quantity, and chemical and physical form;
 - 2. A description of the circumstances under which the loss or theft occurred;
 - 3. A statement of disposition, or probable disposition, of the licensed material involved;
 - 4. Actions that have been taken, or will be taken, to recover the material; and
 - 5. Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed material.
- H.** Subsequent to filing the written report, the licensee shall also report any additional substantive information on the loss or theft within 30 days after the licensee learns of such information.



R12-1-1982. **Reserved**

R12-1-1983. **Reserved**

R12-1-1984. **Reserved**

R12-1-1985. **Reserved**

R12-1-1986. **Reserved**

R12-1-1987. **Reserved**

R12-1-1988. **Reserved**

R12-1-1989. **Reserved**

R12-1-1990. **Reserved**

R12-1-1991. **Reserved**

R12-1-1992. **Reserved**

R12-1-1993. **Reserved**

R12-1-1994. **Reserved**

R12-1-1995. **Reserved**

R12-1-1996. **Reserved**

R12-1-1997. **Reserved**

R12-1-1998. **Reserved**

R12-1-1999. **Reserved**

R12-1-19100. **Reserved**

R12-1-19101. **Form of Records**

Each record required by this Article shall be legible throughout the retention period specified by each Agency rule. The record may 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. The record may also 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. The licensee shall maintain adequate safeguards against tampering with and loss of records.

R12-1-19102. **Reserved**

R12-1-19103. **Record Retention**

Licensees shall maintain the records that are required by the rules in this Article for the period specified by the appropriate rule. If a retention period is not otherwise specified, these records shall be retained until the Agency terminates the facility's license. All records related to this Article may be destroyed upon Agency termination of the facility's license.

R12-1-19104. **Reserved**

R12-1-19105. **Inspections**

A. Each licensee shall afford to the Agency, at all reasonable times, opportunity to inspect category 1 or category 2 quantities of radioactive material and the premises and facilities wherein the nuclear material is used, produced, or stored.

B. Each licensee shall make available to the Agency for inspection, upon reasonable notice, records kept by the licensee pertaining to its receipt, possession, use, acquisition, import, export, or transfer of category 1 or category 2 quantities of radioactive material.

R12-1-19106. **Reserved**

R12-1-19107. **Violations**

A. The Agency may obtain an injunction or other court order to prevent a violation of the provisions of:

1. A.R.S. § 30-685, as amended;
2. A.A.C. Title 12, Chapter 1; or
3. A rule or order issued by the Agency pursuant to Statute or the rules under A.A.C. Title 12, Chapter 1.

B. The Agency may obtain a court order for the payment of a civil penalty imposed under A.R.S. § 30-687, as amended:

1. For violations of:
 - a. The rules in A.A.C. Title 12, Chapter 1, as amended;
 - b. Nonpayment of fees listed in A.A.C. Title 12, Chapter 1, Article 13;
 - c. Any rule, or order issued pursuant to the sections specified in paragraph (B)(1)(a) of this section;
 - d. Any term, condition, or limitation of any license issued under the sections specified in paragraph (B)(1)(a) of this section.
2. For any violation for which a license may be revoked.

R12-1-19108. **Reserved**

R12-1-19109. **Criminal Penalties**

Arizona Revised Statutes § 30-673, as amended, provides for criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate, any rule issued under A.A.C. Title 12, Chapter 1. For purposes of this section, all the rules in this Article are issued under A.R.S. § 30-673 or the rules of the Agency.

Appendix A

Table 1—Category 1 and Category 2 Threshold

The terabecquerel (TBq) values are the regulatory standard. The curie (Ci) values specified are obtained by converting from the TBq value. The curie values are provided for practical usefulness only.



<u>Radioactive Material</u>	<u>Category 1 (TBq)</u>	<u>Category 1 (Ci)</u>	<u>Category 2 (TBq)</u>	<u>Category 2 (Ci)</u>
<u>Americium-241</u>	<u>60</u>	<u>1,620</u>	<u>0.6</u>	<u>16.2</u>
<u>Americium-241/Be</u>	<u>60</u>	<u>1,620</u>	<u>0.6</u>	<u>16.2</u>
<u>Californium-252</u>	<u>20</u>	<u>540</u>	<u>0.2</u>	<u>5.40</u>
<u>Cobalt-60</u>	<u>30</u>	<u>810</u>	<u>0.3</u>	<u>8.10</u>
<u>Curium-244</u>	<u>50</u>	<u>1,350</u>	<u>0.5</u>	<u>13.5</u>
<u>Cesium-137</u>	<u>100</u>	<u>2,700</u>	<u>1</u>	<u>27.0</u>
<u>Gadolinium-153</u>	<u>1,000</u>	<u>27,000</u>	<u>10</u>	<u>270</u>
<u>Iridium-192</u>	<u>80</u>	<u>2,160</u>	<u>0.8</u>	<u>21.6</u>
<u>Plutonium-238</u>	<u>60</u>	<u>1,620</u>	<u>0.6</u>	<u>16.2</u>
<u>Plutonium-239/Be</u>	<u>60</u>	<u>1,620</u>	<u>0.6</u>	<u>16.2</u>
<u>Promethium-147</u>	<u>40,000</u>	<u>1,080,000</u>	<u>400</u>	<u>10,800</u>
<u>Radium-226</u>	<u>40</u>	<u>1,080</u>	<u>0.4</u>	<u>10.8</u>
<u>Selenium-75</u>	<u>200</u>	<u>5,400</u>	<u>2</u>	<u>54.0</u>
<u>Strontium-90</u>	<u>1,000</u>	<u>27,000</u>	<u>10</u>	<u>270</u>
<u>Thulium-170</u>	<u>20,000</u>	<u>540,000</u>	<u>200</u>	<u>5,400</u>
<u>Ytterbium-169</u>	<u>300</u>	<u>8,100</u>	<u>3</u>	<u>81.0</u>

Note: Calculations Concerning Multiple Sources or Multiple Radionuclides

The “sum of fractions” methodology for evaluating combinations of multiple sources or multiple radionuclides is to be used in determining whether a location meets or exceeds the threshold and is thus subject to the requirements of this part.

1. If multiple sources of the same radionuclide and/or multiple radionuclides are aggregated at a location, the sum of the ratios of the total activity of each of the radionuclides shall be determined to verify whether the activity at the location is less than the category 1 or category 2 thresholds of Table 1, as appropriate. If the calculated sum of the ratios, using the equation below, is greater than or equal to 1.0, then the applicable requirements of this part apply.
2. First determine the total activity for each radionuclide from Table 1. This is done by adding the activity of each individual source, material in any device, and any loose or bulk material that contains the radionuclide. Then use the equation below to calculate the sum of the ratios by inserting the total activity of the applicable radionuclides from Table 1 in the numerator of the equation and the corresponding threshold activity from Table 1 in the denominator of the equation.

Calculations shall be performed in metric values (i.e., TBq) and the numerator and denominator values shall be in the same units.

R1 = total activity for radionuclide 1

R2 = total activity for radionuclide 2

RN = total activity for radionuclide n

AR1 = activity threshold for radionuclide 1

AR2 = activity threshold for radionuclide 2

ARN = activity threshold for radionuclide n

$$\sum_{i=1}^n \left[\frac{R_i}{AR_i} + \frac{R_2}{AR_2} + \frac{R_n}{AR_n} \right] \geq 1.0$$