TITLE 180 CONTROL OF RADIATION

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Copies of the Code of Federal Regulations (CFR) cited in this Chapter are located at:
http://www.gpoaccess.gov/cfr/index.html

TITLE 180 CONTROL OF RADIATION

CHAPTER 24 PHYSICAL PROTECTION OF RADIOACTIVE MATERIAL

24-001 SCOPE AND AUTHORITY:

24-001.01 180 NAC 24 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 24-A of 180 NAC 24. 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 180 NAC 24 authorizes possession of licensed material.

24-001.02 180 NAC 24-004 through 24-019 apply to any person who, under 180 NAC 24, possesses or uses at any site, an aggregated category 1 or category 2 quantity of radioactive material.

24-001.03 180 NAC 24-020 through 24-025 applies to any person who:

24-001.03A Transports or delivers to a carrier for transport in a single shipment, a category 1 or category 2 quantity of radioactive material; or

24-001.03B Imports or exports a category 1 or category 2 quantity of radioactive material; the provisions only apply to the domestic portion of the transport.

24-002 DEFINITIONS: For purposes of 180 NAC 24:

Access ~~c~~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.

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.

Approved ~~i~~Individual means an individual whom the licensee has determined to be trustworthy and reliable for unescorted access in accordance with 180 NAC 24-004 through 24-010 and who has completed the training required by 180 NAC 24-012.03.

Background ~~i~~Investigation means the investigation conducted by a licensee or applicant to support the determination of trustworthiness and reliability.

Category 1 ~~q~~Quantity of ~~r~~Radioactive ~~m~~Material means a quantity of radioactive material meeting or exceeding the category 1 threshold in Table 1 of Appendix 24-A in 180 NAC 24. This 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 ~~q~~Quantity of ~~r~~Radioactive ~~m~~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 24-A in 180 NAC 24. This 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.

Diversion means the unauthorized movement of radioactive material subject to 180 NAC 24 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 ~~a~~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.

FBI Federal Bureau of Investigation

Fingerprint ~~o~~Orders means the orders issued by the U.S. Nuclear Regulatory Commission or the legally binding requirements issued by the Department or 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 ~~a~~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 ~~i~~Issuing ~~a~~Authority means the licensing agency that issued the license, i.e. the Department, the U.S. Nuclear Regulatory Commission or the appropriate agency of an Agreement State.

Local ~~l~~Law ~~e~~Enforcement ~~a~~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.

Mobile ~~d~~Device means a piece of equipment containing licensed radioactive material that is either mounted on wheels or casters, or 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 ~~c~~Control ~~c~~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 ~~a~~Arrival ~~t~~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.

Reviewing ~~o~~Official means the individual who must 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 ~~h~~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 ~~z~~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 ~~p~~Position ~~m~~Monitoring ~~s~~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 ~~r~~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 ~~a~~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.

24-003 SPECIFIC EXEMPTIONS

24-003.01 A licensee that possesses radioactive waste that contains category 1 or category 2 quantities of radioactive material is exempt from the requirements 180 NAC 24 24-004 through 25-025. Except that any radioactive waste that contains discrete sources, ion-exchange resins, or activated material that weighs less than 4,409 pounds (2,000 kg) is not exempt from the requirements 180 NAC 24. The licensee must implement the following requirements to secure the radioactive waste:

24-003.01A Use continuous physical barriers that allow access to the radioactive waste only through established access control points;

24-003.01B Use a locked door or gate with monitored alarm at the access control point;

24-003.01C Assess and respond to each actual or attempted unauthorized access to determine whether an actual or attempted theft, sabotage, or diversion occurred; and

24-003.01D Immediately notify the local law enforcement agency (LLEA) ~~LLEA~~ and request an armed response from the local law enforcement agency (LLEA) ~~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.

BACKGROUND INVESTIGATIONS AND ACCESS CONTROL PROGRAM

24-004 PERSONNEL ACCESS AUTHORIZATION REQUIREMENTS FOR CATEGORY 1 OR CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

24-004.01 General

24-004.01A Each licensee that possesses an aggregated quantity of radioactive material at or above the category 2 threshold must establish, implement, and maintain its access authorization program in accordance with the requirements of 180 NAC 24-004 through 24-010.

24-004.01B An applicant for a new license and each licensee that would become newly subject to the requirements of 180 NAC 24-004 through 24-010 upon application for modification of its license must implement the requirements of 180 NAC 24-004 through 24.010, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material.

24-004.01C Any licensee that has not previously implemented the Security Orders or been subject to the provisions of 180 NAC 24-004 through 24-010 must implement the provisions of 180 NAC 24-004 through 24-010 before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold.

24-004.02 General Performance Objective: The licensee's access authorization program must ensure that the individuals specified in 180 NAC 24-004.03A are trustworthy and reliable.

24-004.03 Applicability

24-004.03A Licensees must subject the following individuals to an access authorization program:

24-004.03A1 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

24-004.03A2 Reviewing officials.

24-004.03B Licensees need not subject the categories of individuals listed in 180 NAC 24-008.01, items 1 through 13 to the investigation elements of the access authorization program.

24-004.03C Licensees must 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.

24-004.03D Licensees may include individuals needing access to safeguards information-modified handling under 10 CFR 73 in the access authorization program under 180 NAC 24-004 through 24-010.

24-005 ACCESS AUTHORIZATION PROGRAM REQUIREMENTS

24-005.01 Granting Unescorted Access Authorization

24-005.01A Licensees must implement the requirements of 180 NAC 24-004 through 24-010 for granting initial or reinstated unescorted access authorization.

24-005.01B Individuals who have been determined to be trustworthy and reliable must also complete the security training required by 180 NAC 24-012C before being allowed unescorted access to category 1 or category 2 quantities of radioactive material.

24-005.02 Reviewing Officials

24-005.02A 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.

24-005.02B Each licensee must name one or more individuals to be reviewing officials. After completing the background investigation on the reviewing official, the licensee must 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 must 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 must recertify that the reviewing official is deemed trustworthy and reliable every ten years in accordance with 180 NAC 24-006.0~~2~~3.

24-005.02C Reviewing officials must 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.

24-005.02D Reviewing officials cannot approve other individuals to act as reviewing officials.

24-005.02E A reviewing official does not need to undergo a new background investigation before being named by the licensee as the reviewing official if:

1. The individual has undergone a background investigation that included fingerprinting and an Federal Bureau of Investigation (FBI) ~~FBI~~ criminal history records check and has been determined to be trustworthy and reliable by the licensee; or

2. The individual is subject to a category listed in 180 NAC 24-008.01.

24-005.03 Informed Consent

24-005.03A Licensees may not initiate a background investigation without the informed and signed consent of the subject individual. This consent must 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 must 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 180 NAC 24-006.02. A signed consent must be obtained prior to any reinvestigation.

24-005.03B The subject individual may withdraw his or her consent at any time. Licensees must inform the individual that:

1. 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/her consent; and
2. The withdrawal of consent for the background investigation is sufficient cause for denial or termination of unescorted access authorization.

24-005.04 Personal History Disclosure

Any individual who is applying for unescorted access authorization must 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 180 NAC 24.004 through 24-10 is sufficient cause for denial or termination of unescorted access

24-005.05 Determination Basis

24-005.05A The reviewing official must 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 180 NAC 24-004 through 24-010.

24-005.05B 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 180 NAC 24-004 through 24-010 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.

24-005.05C The licensee must document the basis for concluding whether or not there is reasonable assurance that an individual is trustworthy and reliable.

24-005.05D 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.

24-005.05E Licensees must 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 must remove the person from the approved list as soon as possible, but no later than seven working days, and take prompt measures to ensure that the individual is unable to have unescorted access to the material.

24-005.06 Procedures. Licensees must develop, implement, and maintain written procedures for implementing the access authorization program. The procedures must include provisions for the notification of individuals who are denied unescorted access. The procedures must include provisions for the review, at the request of the affected

individual, of a denial or termination of unescorted access authorization. The procedures must 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.

24-005.07 Right to Correct and Complete Information

24-005.07A Prior to any final adverse determination, licensees must provide each individual subject to 180 NAC 24-004 through 24-010 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 must be maintained by the licensee for a period of one year from the date of the notification.

24-005.07B 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 Federal Bureau of Investigation (FBI) ~~FBI~~ Identification Division makes any changes necessary in accordance with the information supplied by that agency. Licensees must provide at least ten days for an individual to initiate action to challenge the results of a Federal Bureau of Investigation (FBI) ~~FBI~~ criminal history records check after the record being made available for his/her review. The licensee may make a final adverse determination based upon the criminal history records only after receipt of the Federal Bureau of Investigation (FBI) ~~FBI~~'s confirmation or correction of the record.

24-005.08 Records

24-005.08A The licensee must retain documentation regarding the trustworthiness and reliability of individual employees for three years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

24-005.08B The licensee must retain a copy of the current access authorization program procedures as a record for three years after the procedure is no longer needed. If any portion of the procedure is superseded, the licensee must retain the superseded material for three years after the record is superseded.

24-005.08C The licensee must retain the list of persons approved for unescorted access authorization for three years after the list is superseded or replaced.

24-006 BACKGROUND INVESTIGATION

24-006.01 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 must complete a background investigation of the individual seeking unescorted access authorization. The scope of the investigation must encompass at least the seven years preceding the date of the background investigation or since the individual's eighteenth birthday, whichever is shorter. The background investigation must include at a minimum:

24-006.01A Fingerprinting and an Federal Bureau of Investigation (FBI) ~~FBI~~ identification and criminal history records check in accordance with 180 NAC 24-007:

24-006.01B Verification of true identity. Licensees must verify the true identity of the individual who is applying for unescorted access authorization to ensure that the applicant is who s/he claims to be. A licensee must 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 must document the type, expiration, and identification number of the identification document, or maintain a photocopy of identifying documents on file in accordance with 180 NAC 24-009. Licensees must certify in writing that the identification was properly reviewed, and must maintain the certification and all related documents for review upon inspection;

24-006.01C Employment history verification. Licensees must complete an employment history verification, including military history. Licensees must verify the individual's employment with each previous employer for the most recent seven years before the date of application;

24-006.01D Verification of education. Licensees must verify that the individual participated in the education process during the claimed period;

24-006.01E Character and reputation determination. Licensees must 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 180 NAC 24-004 through 24-010 must be limited to whether the individual has been and continues to be trustworthy and reliable;

24-006.01F The licensee must 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

24-006.01G 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 ten business days of the request or if the licensee is unable to reach the entity, the licensee must document the refusal, unwillingness, or inability in the record of investigation; and attempt to obtain the information from an alternate source.

24-006.02 Grandfathering

24-006.02A 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 must be subject to the reinvestigation requirement.

24-006.02B Individuals who have been determined to be trustworthy and reliable under the provisions of 10 CFR 73 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 must document that the individual was determined to be trustworthy and reliable under the provisions of 10 CFR 73 or a security order. Security order, in this context, refers to any order that was issued by the U.S. Nuclear Regulatory Commission that required fingerprints and an Federal Bureau of Investigation (FBI) ~~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 must be subject to the reinvestigation requirement.

24-006.03 Reinvestigations. Licensees must conduct a reinvestigation every ten years for any individual with unescorted access to category 1 or category 2 quantities of radioactive material. The reinvestigation must consist of fingerprinting and an Federal Bureau of Investigation (FBI) ~~FBI~~ identification and criminal history records check in accordance with 180 NAC 24-007. The reinvestigations must be completed within ten years of the date on which these elements were last completed.

24-007 REQUIREMENTS FOR CRIMINAL HISTORY RECORDS CHECKS OF INDIVIDIUAL GRANTED UNESCORTED ACCESS TO CATEGORY 1 OR CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIALS

24-007.01 General Performance Objective and Requirements

24-007.01A Except for those individuals listed in 180 NAC 24-008 and those individuals grandfathered under 180 NAC 24-006.02, each licensee subject to the provisions of this 180 NAC 24-004 through 24-010 must fingerprint each individual who is to be permitted unescorted access to category 1 or category 2 quantities of radioactive material. Licensees must transmit all collected fingerprints to the U.S. Nuclear Regulatory Commission for transmission to the Federal Bureau of Investigation (FBI) ~~FBI~~. The licensee must use the information received from the Federal Bureau of Investigation (FBI) ~~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.

24-007.01B The licensee must notify each affected individual that his or her fingerprints will be used to secure a review of his or her criminal history record, and must inform him/her of the procedures for revising the record or adding explanations to the record.

24-007.01C 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:

24-007.01C1 The individual returns to the same facility that granted unescorted access authorization within 365 days of the termination of his/her unescorted access authorization; and

24-007.01C2 The previous access was terminated under favorable conditions.

24-007.01D 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 180 NAC 24-004 through 24-010, the Fingerprint Orders, or 10 CFR 73. An existing criminal history records check file may be transferred to the licensee asked to grant unescorted access in accordance with the provisions of 180 NAC 24-009.03.

24-007.01E Licensees must 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.

24-007.02 Prohibitions

24-007.02A 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 Federal Bureau of Investigation (FBI) ~~FBI~~ involving:

24-007.02A1 An arrest more than one year old for which there is no information of the disposition of the case; or

24-007.02A2 An arrest that resulted in dismissal of the charge or an acquittal.

24-007.02B Licensees may not use information received from a criminal history records check obtained under 180 NAC 24-004 through 24-010 in a manner that would infringe upon the rights of any individual under the First Amendment to the Constitution of the United States, nor must licensees use the information in any way that would discriminate among individuals on the basis of race, religion, national origin, gender, or age.

24-007.03 Procedures for Processing of Fingerprint Checks

24-007.03A For the purpose of complying with 180 NAC 24-004 through 24-010, licensees must use an appropriate method listed in 10 CFR 37.7 to submit to the U.S. Nuclear Regulatory Commission, Director, Division of Facilities and Security, 11545 Rockville Pike, ATTN: Criminal History Program/Mail T-03B46M, 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~~ Office of the Chief Information Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, by calling 1-(301)415-7513, or by e-mail to FORMS.Resource@nrc.gov. Guidance on submitting electronic fingerprints can be found at http://www.nrc.gov/site-help/e-submittals.html.

24-007.03B Fees for the processing of fingerprint checks are due upon application. Licensees must 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 301-415-7513.) Combined payment for multiple applications is acceptable. The U.S. Nuclear Regulatory Commission publishes the amount of the fingerprint check application fee on the U.S. Nuclear Regulatory Commission (NRC) ~~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.)

24-007.03C The U.S. Nuclear Regulatory Commission will forward to the submitting licensee all data received from the Federal Bureau of Investigation (FBI) ~~FBI~~ as a result of the licensee's application(s) for criminal history records checks.

24-008 RELIEF FROM FINGERPRINTING IDENTIFICATION, AND CRIMINAL HISTORY RECORDS CHECK AND OTHER ELEMENTS OF BACKGROUND INVESTIGATIONS FOR DESIGNATED CATEGOREIS OF INDIVIDUALS PERMITTED UNESCORTED ACCESS TO CERTAIN RADIOACTIVE MATERIAL

24-008.01 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 U.S. Nuclear Regulatory Commission 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 U.S. Nuclear Regulatory Commission;
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 s\he makes available the appropriate documentation. Written confirmation from the agency/employer that granted the Federal security clearance or reviewed the criminal history records check must be provided to the licensee. The licensee must retain this documentation for a period of three 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 must be provided to the licensee. The licensee must retain the documentation for a period of three years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

24-008.02 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 five years, under a comparable U.S. Government program involving

fingerprinting and an Federal Bureau of Investigation (FBI) ~~FBI~~ identification and criminal history records check provided that s~~A~~he makes available the appropriate documentation. Written confirmation from the agency/employer that reviewed the criminal history records check must be provided to the licensee. The licensee must retain this documentation for a period of three 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 drivers license under 49 CFR part 1572; and
6. Customs and Border Protection's Free and Secure Trade (FAST) Program.

24-009 PROTECTION OF INFORMATION

24-009.01 Each licensee who obtains background information on an individual under 180 NAC 24-004 through 24-010 must establish and maintain a system of files and written procedures for protection of the record and the personal information from unauthorized disclosure.

24-009.02 The licensee may not disclose the record or personal information collected and maintained to persons other than the subject individual, his/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.

24-009.03 The personal information obtained on an individual from a background investigation may be provided to another licensee:

24-009.03A Upon the individual's written request to the licensee holding the data to disseminate the information contained in his or her file; and

24-009.03B The recipient licensee verifies information such as name, date of birth, social security number, gender, and other applicable physical characteristics.

24-009.04 The licensee must make background investigation records obtained under 180 NAC 24-004 through 24-010 available for examination by an authorized representative of the Department to determine compliance with the regulations and laws.

24-009.05 The licensee must retain all fingerprint and criminal history records (including data indicating no record) received from the Federal Bureau of Investigation (FBI) ~~FBI~~, or a copy of these records if the individual's file has been transferred, on an individual for three years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

24-010 ACCESS AUTHORIZATION PROGRAM REVIEW

24-010.01 Each licensee must be responsible for the continuing effectiveness of the access authorization program. Each licensee must ensure that access authorization programs are reviewed to confirm compliance with the requirements of 180 NAC 24-004 through 24-010 and that comprehensive actions are taken to correct any noncompliance that is identified. The review program must evaluate all program performance objectives and requirements. Each licensee must periodically (at least annually) review the access program content and implementation.

24-010.02 The results of the reviews, along with any recommendations, must be documented. Each review report must 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 must review the findings and take any additional corrective actions necessary to preclude repetition of the condition, including reassessment of the deficient areas where indicated.

24-010.02 Review records must be maintained for three years.

PHYSICAL PROTECTION REQUIREMENTS DURING USE

24-011 SECURITY PROGRAM

24-011.01 Applicability

24-011.01A Each licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material must establish, implement, and maintain a security program in accordance with the requirements of this 180 NAC 24-011 through 24-019.

24-011.01B An applicant for a new license and each licensee that would become newly subject to the requirements of 180 NAC 24-011 through 24-019 upon application for modification of its license must implement the requirements of 180 NAC 24-011 through 24-019, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material.

24-011.01C Any licensee that has not previously implemented the Security Orders or been subject to the provisions of 180 NAC 24-011 through 24-019 must provide written notification to the Department in accordance with 180 NAC 1-012 at least 90 days before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold.

24-011.02 General Performance Objective: Each licensee must 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.

24-011.03 Program Features: Each licensee's security program must include the program features, as appropriate, described in 180 NAC 24-012 through 24-018.

24-012 GENERAL SECURITY PROGRAM REQUIREMENTS

24-012.01 Security Plan

24-012.01A Each licensee identified in 180 NAC 24-011 must 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 180 NAC 24-011 through 24-019. The security plan must, at a minimum:

24-012.01A1 Describe the measures and strategies used to implement the requirements of 180 NAC 24-011 through 24-019; and

24-012.01A2 Identify the security resources, equipment, and technology used to satisfy the requirements of 180 NAC 24-011 through 24-019.

24-012.01B The security plan must be reviewed and approved by the individual with overall responsibility for the security program.

24-012.01C A licensee must revise its security plan as necessary to ensure the effective implementation of Department requirements. The licensee must ensure that:

24-012.01C1 The revision has been reviewed and approved by the individual with overall responsibility for the security program; and

24-012.01C2 The affected individuals are instructed on the revised plan before the changes are implemented.

24-012.01D The licensee must retain a copy of the current security plan as a record for three years after the security plan is no longer required. If any portion of the plan is superseded, the licensee must retain the superseded material for three years after the record is superseded.

24-012.02 Implementing Procedures

24-012.02A The licensee must develop and maintain written procedures that document how the requirements of 180 NAC 24-011 through 24-019 and the security plan will be met.

24-012.02B The implementing procedures and revisions to these procedures must be approved in writing by the individual with overall responsibility for the security program.

24-012.02C The licensee must retain a copy of the current procedure as a record for three years after the procedure is no longer needed. Superseded portions of the procedure must be retained for three years after the record is superseded.

24-012.03 Training

24-012.03A Each licensee must 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 must include instruction in:

24-012.03A1 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;

24-012.03A2 The responsibility to report promptly to the licensee any condition that causes or may cause a violation of Department requirements;

24-012.03A3 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

24-012.03A4 The appropriate response to security alarms.

24-012.03B In determining those individuals who must be trained on the security program, the licensee must 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 must be commensurate with the individual's potential involvement in the security of category 1 or category 2 quantities of radioactive material.

24-012.03C Refresher training must be provided at a frequency not to exceed 12 months and when significant changes have been made to the security program. This training must include:

24-012.03C1 Review of the training requirements of 180 NAC 24-012.03 and any changes made to the security program since the last training;

24-012.03C2 Reports on any relevant security issues, problems, and lessons learned;

24-012.03C3 Relevant results of Department inspections; and

24-012.03C Relevant results of the licensee's program review and testing and maintenance.

24-012.03D The licensee must maintain records of the initial and refresher training for three years from the date of the training. The training records must include dates of the training, topics covered, a list of licensee personnel in attendance, and related information.

24-012.04 Protection of Information

24-012.04A Licensees authorized to possess category 1 or category 2 quantities of radioactive material must limit access to and unauthorized disclosure of their security plan, implementing procedures, and the list of individuals that have been approved for unescorted access.

24-012.04B Efforts to limit access must 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.

24-012.04C Before granting an individual access to the security plan or implementing procedures, licensees must:

24-012.04C1 Evaluate an individual's need to know the security plan or implementing procedures; and

24-012.04C2 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 must complete a background investigation to determine the individual's trustworthiness and reliability. A trustworthiness and reliability determination must be conducted by the reviewing official and must include the background investigation elements contained in 180 NAC 24-006.01B through 24-006.01G.

24-012.04D Licensees need not subject the following individuals to the background investigation elements for protection of information:

24-012.04D1 The categories of individuals listed in 180 NAC 24-008.01, items 1 through 13; or

24-012.04D2 Security service provider employees, provided written verification that the employee has been determined to be trustworthy and reliable, by the required background investigation in 180 NAC 24-006.01B through 24-006.01G, has been provided by the security service provider.

24-012.04E The licensee must document the basis for concluding that an individual is trustworthy and reliable and should be granted access to the security plan or implementing procedures.

24-012.04F Licensees must 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 must remove the person from the approved list as soon as possible, but no later than seven working days, and take prompt measures to ensure that the individual is unable to obtain the security plan or implementing procedures.

24-012.04G When not in use, the licensee must store its security plan and implementing procedures in a manner to prevent unauthorized access. Information stored in nonremovable electronic form must be password protected.

24-012.04H The licensee must retain as a record for three years after the document is no longer needed:

24-012.03H1 A copy of the information protection procedures; and

24-012.03H2 The list of individuals approved for access to the security plan or implementing procedures.

24-013 LOCAL LAW ENFORCEMENT AGENCY (LLEA) ~~LLEA~~ COORDINATION

24-013.01 A licensee subject to this 180 NAC 24-011 through 24-019 must coordinate, to the extent practicable, with a~~n~~ local law enforcement agency (LLEA) ~~LLEA~~ for responding to threats to the licensee's facility, including any necessary armed response. The information provided to the local law enforcement agency (LLEA) ~~LLEA~~ must include:

24-013.01A 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 180 NAC 24-011 through 24-019; and

24-013.01B A notification that the licensee will request a timely armed response by the local law enforcement agency (LLEA) ~~LLEA~~ to any actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of material.

24-013.02 The licensee must notify the Department within three business days if:

24-013.02A The local law enforcement agency (LLEA) ~~LLEA~~ has not responded to the request for coordination within 60 days of the coordination request; or

24-013.02B The local law enforcement agency (LLEA) ~~LLEA~~ notifies the licensee that the local law enforcement agency (LLEA) ~~LLEA~~ does not plan to participate in coordination activities.

24-013.03 The licensee must document its efforts to coordinate with the local law enforcement agency (LLEA) ~~LLEA~~. The documentation must be kept for three years.

24-013.04 The licensee must coordinate with the local law enforcement agency (LLEA) ~~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.

24-014 SECURITY ZONES

24-014.01 Licensees must 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.

24-014.02 Temporary security zones must be established as necessary to meet the licensee's transitory or intermittent business activities, such as periods of maintenance, source delivery, and source replacement.

24-014.03 Security zones must, at a minimum, allow unescorted access only to approved individuals through:

24-014.03A 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

24-014.03B Direct control of the security zone by approved individuals at all times; or

24-014.03C A combination of continuous physical barriers and direct control.

24-014.04 For category 1 quantities of radioactive material during periods of maintenance, source receipt, preparation for shipment, installation, or source removal or exchange, the licensee must, 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.

24-014.05 Individuals not approved for unescorted access to category 1 or category 2 quantities of radioactive material must be escorted by an approved individual when in a security zone.

24-015 MONITORING DETECTION, AND ASSESSMENT

24-015.01 Monitoring and Detection

24-015.01A Licensees must establish and maintain the capability to continuously monitor and detect without delay all unauthorized entries into its security zones.

Licensees must 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.

24-015.01B Monitoring and detection must be performed by:

24-015.01B1 A monitored intrusion detection system that is linked to an onsite or offsite central monitoring facility; or

24-015.01B2 Electronic devices for intrusion detection alarms that will alert nearby facility personnel; or

24-015.01B3 A monitored video surveillance system; or

24-015.01B4 Direct visual surveillance by approved individuals located within the security zone; or

24-015.01B5 Direct visual surveillance by a licensee designated individual located outside the security zone.

24-015.01C A licensee subject to 180 NAC 24.011 through 24-019 must also have a means to detect unauthorized removal of the radioactive material from the security zone. This detection capability must provide:

24-015.01C1 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 must be provided by:

1. Electronic sensors linked to an alarm; or
2. Continuous monitored video surveillance; or
3. Direct visual surveillance.

24-015.01C2 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.

24-015.02 Assessment: Licensees must 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.

24-015.03 Personnel Communications and Data Transmission: For personnel and automated or electronic systems supporting the licensee's monitoring, detection, and assessment systems, licensees must:

24-015.03A Maintain continuous capability for personnel communication and electronic data transmission and processing among site security systems; and

24-015.03B 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.

24-015.04 Response: Licensees must 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 must include requesting, without delay, an armed response from the local law enforcement agency (LLEA) ~~LLEA~~.

24-016 MAINTENANCE AND TESTING

24-016.01 Each licensee subject to 180 NAC 24-011 through 24-019 must 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 180 NAC 24 must 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 must be performed at least annually, not to exceed 12 months.

24-016.02 The licensee must maintain records on the maintenance and testing activities for three years.

24-017 REQUIREMENTS FOR MOBILE DEVICES: Each licensee that possesses mobile devices containing category 1 or category 2 quantities of radioactive material must:

24-017.01 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

24-017.02 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 must utilize a method to disable the vehicle or trailer when not under direct control and constant surveillance by the licensee. Licensees must not rely on the removal of an ignition key to meet this requirement.

24-018 SECURITY PROGRAM REVIEW

24-018.01 Each licensee must be responsible for the continuing effectiveness of the security program. Each licensee must ensure that the security program is reviewed to confirm compliance with the requirements of 180 NAC 24-011 through 24-019 and that

comprehensive actions are taken to correct any noncompliance that is identified. The review must include the radioactive material security program content and implementation. Each licensee must periodically (at least annually) review the security program content and implementation.

24-018.02 The results of the review, along with any recommendations, must be documented. Each review report must 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 must review the findings and take any additional corrective actions necessary to preclude repetition of the condition, including reassessment of the deficient areas where indicated.

24-018.03 The licensee must maintain the review documentation for three years.

24-019 REPORTING OF EVENTS:

24-019.01 The licensee must immediately notify the local law enforcement agency (LLEA) ~~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 local law enforcement agency (LLEA) ~~LLEA~~ response to the event, the licensee must notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours. In no case must the notification to the Department be later than 4 hours after the discovery of any attempted or actual theft, sabotage, or diversion.

24-019.02 The licensee must assess any suspicious activity related to possible theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material and notify the local law enforcement agency (LLEA) ~~LLEA~~ as appropriate. As soon as possible but not later than four hours after notifying the local law enforcement agency (LLEA) ~~LLEA~~, the licensee must notify the notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours.

24-019.03 The initial telephonic notification required by 180 NAC 24-019.01 must be followed within a period of 30 days by a written report submitted to the Department in accordance with 180 NAC 1-012. The report must include sufficient information for Department analysis and evaluation, including identification of any necessary corrective actions to prevent future instances.

PHYSICAL PROTECTION IN TRANSIT

24-020 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, U.S. Nuclear Regulatory Commission or an Agreement State must meet the license verification provisions listed below instead of those listed in 180 NAC 3-025.04:

24-020.01 Any licensee transferring category 1 quantities of radioactive material to a licensee of the Department, U.S. Nuclear Regulatory Commission or an Agreement State, prior to conducting such transfer, must verify with the U.S. Nuclear Regulatory'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 must document the verification. For transfers within the same organization, the licensee does not need to verify the transfer.

24-020.02 Any licensee transferring category 2 quantities of radioactive material to a licensee of the Department, U.S. Regulatory Commission or an Agreement State, prior to conducting such transfer, must verify with the U.S. Nuclear Regulatory'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 must document the verification. For transfers within the same organization, the licensee does not need to verify the transfer.

24-020.03 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 must include the license number, current revision number, issuing agency, expiration date, and for a category 1 shipment the authorized address. The licensee must keep a copy of the certification. The certification must be confirmed by use of the U.S. Nuclear Regulatory's license verification system or by contacting the license issuing authority by the end of the next business day.

24-020.04 The transferor must keep a copy of the verification documentation as a record for three years.

24-021 APPLICABILITY OF PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL DURING TRANSIT

24-021.01 For shipments of category 1 quantities of radioactive material, each shipping licensee must comply with the requirements for physical protection contained in 180 NAC 24-022.01 and 24-022.05; 180 NAC 24-023; 24-024.01A, 24-024.02A, 24-024.03, and 24-025.01, 24-025.03, 24-025.05, 24-025.07 and 24-025.08.

24-021.02 For shipments of category 2 quantities of radioactive material, each shipping licensee must comply with the requirements for physical protection contained in 180 NAC 24-022.02 through 24-022.05; 24-024.01B, 24-024.01C, 24-024.02B, and 24-024.03; and 24-025.02, 24-025.04, 24-025.06, 24-025.07 and 24-025.08. For those shipments of category 2 quantities of radioactive material that meet the criteria of 180 NAC 13-020.02, the shipping licensee must also comply with the advance notification provisions of 180 NAC 13-020.

24-021.03 The shipping licensee must be responsible for meeting the requirements of this 180 NAC 24-020 through 24-025 unless the receiving licensee has agreed in writing to arrange for the in-transit physical protection required under 180 NAC 24-020 through 24-025.

24-021.04 Each licensee that imports or exports category 1 quantities of radioactive material must comply with the requirements for physical protection during transit contained in 24-022.01B and 24-022.05; 24-023, and 24-024.01A, 24-024.02A, and 24-024.03; and 24-025.01, 24-025.03, 24-025.05, 24-025.07 and 24-025.08 for the domestic portion of the shipment.

24-021.05 Each licensee that imports or exports category 2 quantities of radioactive material must comply with the requirements for physical protection during transit contained in 180 NAC 24-024.01B. 24-024.01C and 24-024.02B, and 180 NAC 24-025.02, 24-025.04, 24-025.06, 24-025.07 and 24-025.08 for the domestic portion of the shipment.

24-022 PREPLANNING AND COORDINATION OF SHIPMENT OF CATEGORY 1 OR CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL:

24-022.01 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 must:

24-022.01A Preplan and coordinate shipment arrival and departure times with the receiving licensee;

24-022.01B Preplan and coordinate shipment information with the governor or the governor's designee of any State through which the shipment will pass to:

24-022.01B1 Discuss the State's intention to provide law enforcement escorts; and

24-022.01B2 Identify safe havens; and

24-022.01C Document the preplanning and coordination activities.

24-022.02 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 must coordinate the shipment no-later-than arrival time and the expected shipment arrival with the receiving licensee. The licensee must document the coordination activities.

24-022.03 Each licensee who receives a shipment of a category 2 quantity of radioactive material must confirm receipt of the shipment with the originator. If the shipment has not arrived by the no-later-than arrival time, the receiving licensee must notify the originator.

24-022.04 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 180 NAC 24-022.02, must promptly notify the receiving licensee of the new no-later-than arrival time.

24-022.05 The licensee must retain a copy of the documentation for preplanning and coordination and any revision thereof, as a record for three years.

24-023 ADVANCE NOTIFICATION OF SHIPMENT OF CATEGORY 1 OR CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL: As specified in 180 NAC 24-023.01 and 24-023.02, each licensee must provide advance notification to the U.S. Nuclear Regulatory Commission 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.

24-023.01 Procedures for submitting advance notification:

24-023.01A The notification must be made to the Department 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 U.S. Nuclear Regulatory Commission's Web site at ~~http://nrc-stp.ornl.gov/special/designee.pdf~~ https://scp.nrc.gov/special/designee.pdf.

24-023.01B A notification delivered by mail must be postmarked at least seven days before transport of the shipment commences at the shipping facility.

24-023.01C A notification delivered by any means other than mail must reach the Department or at least 4 days before the transport of the shipment commences and must 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.

24-023.02 Information to be furnished in advance notification of shipment. Each advance notification of shipment of category 1 quantities of radioactive material must contain the following information, if available at the time of notification:

24-023.02A The name, address, and telephone number of the shipper, carrier, and receiver of the category 1 radioactive material;

24-023.02B The license numbers of the shipper and receiver;

24-023.02C A description of the radioactive material contained in the shipment, including the radionuclides and quantity;

24-023.02D The point of origin of the shipment and the estimated time and date that shipment will commence;

24-023.02E The estimated time and date that the shipment is expected to enter each State along the route;

24-023.02F The estimated time and date of arrival of the shipment at the destination; and

24-023.02G A point of contact, with a telephone number, for current shipment information.

24-023.03 Revision Notice:

24-023.03A The licensee must 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 Department, the governor of the State or the governor's designee.

24-023.03B A licensee must promptly notify the Department, the governor of the State or the governor's designee of any changes to the information provided in accordance with 180 NAC 24-023.02 and 24-023.03A.

24-023.04 Cancellation notice: Each licensee who cancels a shipment for which advance notification has been sent must send a cancellation notice to the Department, the governor of each State or to the governor's designee previously notified. The licensee must send the cancellation notice before the shipment would have commenced or as soon thereafter as possible. The licensee must state in the notice that it is a cancellation and identify the advance notification that is being cancelled.

24-023.05 Records: The licensee must retain a copy of the advance notification and any revision and cancellation notices as a record for three years.

24-023.06 Protection of information: State officials, State employees, and other individuals, whether or not licensees of the Commission or an Agreement State, who receive schedule information of the kind specified in 24-023.02 shall protect that information against unauthorized disclosure as specified in 24-012.04.

24-024 REQUIREMENTS FOR PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL DURING SHIPMENT:

24-024.01 Shipment by Road:

24-024.01A Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material must:

24-024.01A1 Ensure that movement control centers are established that maintain position information from a remote location. These control centers must monitor shipments 24 hours a day, seven days a week, and have the ability to

communicate immediately, in an emergency, with the appropriate law enforcement agencies.

24-024.01A2 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.

24-024.01A3 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 must provide positive confirmation of the location, status, and control over the shipment. The movement control center must 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 local law enforcement agency (LLEA) ~~LLEA~~ along the shipment route.

24-024.01A4 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.

24-024.01A5 Develop written normal and contingency procedures to address:

24-024.01A5a Notifications to the communication center and law enforcement agencies;

24-024.01A5b Communication protocols. Communication protocols must 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;

24-024.01A5c Loss of communications; and

24-024.01A5d Responses to an actual or attempted theft or diversion of a shipment.

24-024.01A6 Each licensee who makes arrangements for the shipment of category 1 quantities of radioactive material must ensure that drivers, accompanying personnel, and movement control center personnel have access to the normal and contingency procedures.

24-024.01B Each licensee that transports category 2 quantities of radioactive material must maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance.

24-024.01C Each licensee who delivers to a carrier for transport, in a single shipment, a category 2 quantity of radioactive material must:

24-024.01C1 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 must 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.

24-024.01C2 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

24-024.01C3 Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

24-024.02 Shipment by Rail

24-024.02A Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material must:

24-024.02A1 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 must provide positive confirmation of the location of the shipment and its status. The communications center must 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 local law enforcement agency (LLEA) ~~LLEA~~ along the shipment route.

24-024.02A2 Ensure that periodic reports to the communications center are made at preset intervals.

24-024.02B Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 2 quantity of radioactive material must:

24-024.02B1 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 must 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.

24-024.02B2 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

24-024.02B3 Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

24-024.03 Investigations: Each licensee who makes arrangements for the shipment of category 1 quantities of radioactive material must 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 must 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.

24-025 REPORTING OF EVENTS:

24-025.01 The shipping licensee must notify the appropriate local law enforcement agency (LLEA) ~~LLEA~~ and the licensee must notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours within one hour of its determination that a shipment of category 1 quantities of radioactive material is lost or missing. The appropriate local law enforcement agency (LLEA) ~~LLEA~~ would be the law enforcement agency in the area of the shipment's last confirmed location. During the investigation required by 180 NAC 24-024.03, the shipping licensee will provide agreed upon updates to the Department on the status of the investigation.

24-025.02 The shipping licensee must notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours within four hours of its determination that a shipment of category 2 quantities of radioactive material is lost or missing. 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 must immediately notify the Department.

24-025.03 The shipping licensee must notify the designated local law enforcement agency (LLEA) ~~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 local law enforcement agency (LLEA) ~~LLEA~~, the licensee must notify the Department 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.

24-025.04 The shipping licensee must notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours 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.

24-025.05 The shipping licensee must notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours and the local law enforcement agency (LLEA) ~~LLEA~~ as soon as possible upon recovery of any lost or missing category 1 quantities of radioactive material.

24-025.06 The shipping licensee must notify the Office of Radiological Health at (402) 471-2168 during business hours or (402) 471-4545 after business hours as soon as possible upon recovery of any lost or missing category 2 quantities of radioactive material.

24-025.07 The initial telephonic notification required by 180 NAC 24-025.01 through 24-026.04 must be followed within a period of 30 days by a written report submitted to the Department in accordance with 180 NAC 1-012. A written report is not required for notifications on suspicious activities required by 180 NAC 24-025.03 and 24-025.04. In addition, the licensee must provide one copy of the written report addressed to the Department. The report must set forth the following information:

24-025.07A A description of the licensed material involved, including kind, quantity, and chemical and physical form;

24-025.07B A description of the circumstances under which the loss or theft occurred;

24-025.07C A statement of disposition, or probable disposition, of the licensed material involved;

24-025.07D Actions that have been taken, or will be taken, to recover the material; and

24-025.07E Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed material.

24-025.08 Subsequent to filing the written report, the licensee must also report any additional substantive information on the loss or theft within 30 days after the licensee learns of such information.

RECORDS

24-026 FORM OF RECORDS: Each record required by 180 NAC 24 must be legible throughout the retention period specified by Department regulation. 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, must include all pertinent information such as stamps, initials, and signatures. The licensee must maintain adequate safeguards against tampering with and loss of records.

24-027 RECORD RETENTION: Licensees must maintain the records that are required by the regulations in 180 NAC 24 for the period specified by the appropriate regulation. If a retention period is not otherwise specified, these records must be retained until the Department terminates the facility's license. All records related to 180 NAC 24 may be destroyed upon Department termination of the facility license.

APPENDIX 24 -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.

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

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.

I. 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 must 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.

II. First determine the total activity for each radionuclide from Table 1 of Appendix 24-A. 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 of Appendix 24-A in the numerator of the equation and the corresponding threshold activity from Table 1 in the denominator of the equation. Calculations must be performed in metric values (i.e., TBq) and the numerator and denominator values must be in the same units.

R_1 = total activity for radionuclide 1
R_2 = total activity for radionuclide 2
R_n = total activity for radionuclide n
AR_1 = activity threshold for radionuclide 1
AR_2 = activity threshold for radionuclide 2
AR_n = activity threshold for radionuclide n

$$\sum_{1}^{n}\left[\frac{R_1}{AR_1}+\frac{R_2}{AR_2}+\frac{R_n}{AR_n}\right]\geq 1.0$$