

Virginia Administrative Code

Database updated through October 18, 2008

12VAC5-481-451. Increased controls and fingerprinting.

A. Radionuclides of concern.

Radionuclide	Quantity of concern (TBq) ^{1,2}	Quantity of concern (Ci) ^{1,2}
Am-241	0.6	16
Am-241/Be	0.6	16
Cf-252	0.2	5.4
Cm-244	0.5	14
Co-60	0.3	8.1
Cs-137	1	27
Gd-153	10	270
Ir192	0.8	22
Pm-147	400	11,000
Pu-238	0.6	16
Pu-239/Be	0.6	16
Ra-226	0.4	11
Se-75	2	54
Sr-90 (Y-90)	10	270
Tm-170	200	5,400
Yb-169	3	81
Combinations of radioactive materials listed above ³	See footnote below ⁴	

¹The aggregate activity of multiple, collocated sources of the same radionuclides should be included when the total activity equals or exceeds the quantity of concern.

²The primary values used for compliance are TBq. The curie (Ci) values are rounded to two significant figures for informational purposes only.

³Radioactive materials are to be considered aggregated or collocated if breaching a common physical barrier (e.g., a locked door at the entrance to a storage room) would allow access to the radioactive material or devices containing the radioactive material.

⁴If several radionuclides are aggregated, the sum of the ratios of the activity of each source, i of radionuclide, n , $A(i,n)$, to the quantity of concern for radionuclide n , Q_n , listed for that radionuclide equals or exceeds one. $[(\text{aggregated source activity for radionuclide A}) / (\text{quantities of concern for radionuclide A})] + [(\text{aggregated source activity for radionuclide B}) / (\text{quantities of concern for radionuclide B})] + \text{etc....} \geq 1$.

B. The following increased controls apply to licensees who, at any given time, possess radioactive sources greater than or equal to the quantities of concern of radioactive material listed in subsection A of this section.

1. In order to ensure the safe handling, use, and control of licensed material in use and in storage, each licensee shall control access at all times to radioactive material quantities of concern and devices containing such radioactive material (devices), and limit access to such radioactive material and devices to only approved individuals who require access to perform their duties.

a. The licensee shall allow only trustworthy and reliable individuals, approved in writing by the licensee, to have unescorted access to radioactive material quantities of concern and devices. The licensee shall approve for unescorted access only those individuals with job duties that require access to such radioactive material and devices. Personnel who require access to such radioactive material and devices to perform a job duty, but who are not approved by the licensee for unescorted access, must be escorted by an approved individual.

b. For individuals employed by the licensee for three years or less, and for nonlicensee personnel, such as physicians, physicists, housekeeping personnel, and security personnel under contract, trustworthiness and reliability shall be determined at a minimum, by verifying employment history, education, personal references and fingerprinting and the review of an FBI identification and criminal history records check. The licensee shall also, to the extent possible, obtain independent information to corroborate that provided by the employee (i.e., seeking references not supplied by the individual). For individuals employed by the licensee for longer than three years, trustworthiness and reliability shall be determined, at a minimum, by a review of the employees' employment history with the licensee and fingerprinting and an FBI identification and criminal history records check.

c. Service provider licensee employees shall be escorted unless determined to be trustworthy and reliable by an NRC-required background investigation. Written verification attesting to or certifying the person's trustworthiness and reliability shall be obtained from the licensee providing the service.

d. The licensee shall document the basis for concluding that there is reasonable assurance that an individual granted unescorted access is trustworthy and reliable, and does not constitute an unreasonable risk for unauthorized use of radioactive material quantities of concern. The licensee shall maintain a list of persons approved for unescorted access to such radioactive material and devices by the licensee.

2. In order to ensure the safe handling, use and control of licensed material in use and in storage, each licensee shall have a documented program to monitor and immediately detect, assess, and respond to unauthorized access to radioactive material quantities of concern and devices. Enhanced monitoring shall be provided during periods of source delivery or shipment, where the delivery or shipment exceeds 100 times the limits in subsection A of this section.

a. The licensee shall respond immediately to any actual or attempted theft, sabotage, or diversion of such radioactive material or of the devices. The response shall include requesting assistance from a local law-enforcement agency (LLEA).

b. The licensee shall have a prearranged plan with LLEA for assistance in response to an actual or attempted theft, sabotage, or diversion of such radioactive material or of the devices that is consistent in scope and timing with a realistic potential vulnerability of the sources containing such radioactive material. The prearranged plan shall be updated when changes to the facility design or operation affect the potential vulnerability of the sources. Prearranged LLEA coordination is not required for temporary job sites.

c. The licensee shall have a dependable means to transmit information between, and among, the various components used to detect and identify an unauthorized intrusion, to inform the assessor, and to summon the appropriate responder.

d. After initiating appropriate response to any actual or attempted theft, sabotage, or diversion of radioactive material or of the devices, the licensee shall, as promptly as possible, notify the agency at (804) 864-8150 during normal business hours and (804) 674-2400 after hours.

e. The licensee shall maintain documentation describing each instance of unauthorized access and any necessary corrective actions to prevent future instances of unauthorized access.

3. Transportation.

a. In order to ensure the safe handling, use, and control of licensed material in transportation for domestic highway and rail shipments by a carrier other than the licensee, for quantities that equal or exceed those in subsection A of this section but are less than 100 times those in subsection A of this section, per consignment, the licensee shall:

(1) Use carriers that:

(a) Use package tracking systems,

(b) Implement methods to assure trustworthiness and reliability of drivers,

(c) Maintain constant control and/or surveillance during transit, and

(d) Have the capability for immediate communication to summon appropriate response or assistance.

(2) Verify and document that the carrier employs the measures listed in subdivision (1) above.

(3) Contact the recipient to coordinate the expected arrival time of the shipment.

(4) Confirm receipt of the shipment.

(5) Initiate an investigation to determine the location of the licensed material if the shipment does not arrive on or about the expected arrival time. When, through the course of the investigation, it is determined the shipment has become lost, stolen, or missing, the licensee shall immediately notify the agency at (804) 864-8150 during normal working hours and (804) 674-2400 after hours. If after 24 hours of investigating, the location of the material still cannot be determined, the radioactive material shall be determined missing and the licensee shall immediately notify the agency at (804) 864-8150 during normal working hours and (804) 674-2400 after hours.

b. For domestic highway and rail shipments, prior to shipping licensed radioactive material that exceeds 100 times the quantities in subsection A of this section per consignment, the licensee shall:

(1) Notify the NRC (Director, Office of Nuclear Material Safety and Safeguards, U.S. NRC, Washington, DC 20555), in writing, at least 90 days prior to the anticipated date of shipment. The NRC will issue the Order to implement the Additional Security Measures (ASMs) for the transportation of Radioactive Material Quantities of Concern (RAM QC). The licensee shall not ship this material until the ASMs for the transportation of RAM QC are implemented or the licensee is notified otherwise, in writing, by the NRC.

(2) Once the licensee has implemented the ASMs for the transportation of RAM QC, the notification requirements of subdivision 1 of this subsection shall not apply to future shipments of licensed radioactive material that exceeds 100 times the quantities listed in subsection A of this section. The licensee shall implement the ASMs for the transportation of RAM QC.

c. If a licensee employs a Manufacturer/Distributor (M&D) licensee to take possession at the licensee's location of the licensed radioactive material and ship it under its M&D license, the requirements of subdivision a and b above shall not apply.

d. If the licensee is to receive radioactive material greater than or equal to the quantities listed in subsection A of this section, per consignment, the licensee shall coordinate with the originator to:

(1) Establish an expected time of delivery; and

(2) Confirm receipt of transferred radioactive material. If the material is not received at the expected time of delivery, notify the originator and assist in any investigation.

4. In order to ensure the safe handling, use, and control of licensed material in use and in storage, each licensee that possesses mobile or portable devices containing radioactive material in quantities greater than or equal to the limits in subsection A of this section shall:

a. For portable devices, 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.

b. For mobile devices:

(1) That are only moved outside of the facility (e.g., on a trailer), 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.

(2) That are only moved inside a facility, have a physical control that forms a tangible barrier to secure the material from unauthorized movement or removal when the device is not under direct control and constant surveillance by the licensee.

c. For devices in or on a vehicle or trailer, licensees shall also utilize a method to disable the vehicle or trailer when not under direct control and constant surveillance by the licensee.

5. The licensee shall retain documentation required by this section for three years after these increased controls are no longer effective.

a. The licensee shall retain documentation regarding the trustworthiness and reliability of individual employees for three years after the individual's employment ends.

b. Each time the licensee revises the list of approved persons required in subdivision 1 d of this subsection or the documented program required by subdivision B 2 of this section, the licensee shall retain the previous documentation for three years after the revision.

c. The licensee shall retain documentation on each radioactive material carrier for three years after the licensee discontinues use of that particular carrier.

d. The licensee shall retain documentation on shipment coordination, notifications, and investigations for three years after the shipment or investigation is completed.

e. After the licensee is terminated or amended to reduce possession limits below the quantities of concern, the licensee shall retain all documentation required by this section for three years.

6. Detailed information generated by the licensee that describes the physical protection of radioactive material quantities of concern is sensitive information and shall be protected from unauthorized disclosure.

a. The licensee shall control access to its physical protection information to those persons who have an established need to know the information and are considered to be trustworthy and reliable.

b. The licensee shall develop, maintain and implement policies and procedures for controlling access to, and for proper handling and protection against unauthorized disclosure of, its physical protection information for radioactive material covered by this section. The policies and procedures shall include the following:

(1) General performance requirement that each person who produces, receives, or acquires the licensee's sensitive information, protect the information from unauthorized disclosure;

- (2) Protection of sensitive information during use, storage, and transit;
- (3) Preparation, identification or marking, and transmission;
- (4) Access controls;
- (5) Destruction of documents;
- (6) Use of automatic data processing systems; and
- (7) Removal from the licensee's sensitive information category.

C. Fingerprinting.

1. Licensees who possess radionuclides in quantities greater than those listed in subsection A of this section shall establish and maintain a fingerprinting program that meets the following:

- a. Each licensee subject to these provisions shall fingerprint each individual who is seeking unescorted access to risk significant radioactive materials equal to or greater than the quantities listed in subsection A of this section. The licensee shall review and use the information received from the Federal Bureau of Investigation (FBI) identification and criminal history records check and ensure that the provisions in this subsection are satisfied;
- b. The licensee shall notify each affected individual that the fingerprints will be used to secure a review of his criminal history record and inform the individual of the procedures for revising the record or including an explanation in the record as specified in subdivision 3 of this subsection;
- c. Fingerprints for unescorted access need not be taken if an employed individual (e.g., a licensee employee, contractor, manufacturer, or supplier) is relieved from the fingerprinting requirement by 10 CFR 73.61, or any person who has been favorably decided by a U.S. government program involving fingerprinting and an FBI identification and criminal history records check (e.g., National Agency Check, Transportation Worker Identification Credentials in accordance with 49 CFR Part 1572, Bureau of Alcohol Tobacco Firearms and Explosives background checks and clearances in accordance with 27 CFR Part 555, Health and Human Services security risk assessments for possession and use of select agents and toxins in accordance with 42 CFR Part 73, Hazardous Material security threat assessment for hazardous material endorsement to commercial drivers license in accordance with 49 CFR Part 1572, Customs and Border Patrol's Free and Secure Trade Program (Note 1: within the last five calendar years, or any person who has an active federal security clearance provided in the latter two cases that they make available the appropriate documentation; Note 2: Written confirmation from the agency/employer that granted the federal security clearance or reviewed the FBI criminal history records results based upon a fingerprint identification check must be provided. The licensee must retain this documentation for a period of three years from the date the individual no longer requires unescorted access to certain radioactive material associated with the licensee's activities.));

d. All fingerprints obtained by the licensee pursuant to this section must be submitted to the NRC (Division of Facilities and Security, 11545 Rockville Pike, ATTN: Criminal History Program, Mail Stop T-6E46, Rockville, MD 20852) for transmission to the FBI. Additionally, the licensee shall submit a certification of the trustworthiness and reliability of the Trustworthy & Reliability (T & R) Official as determined in accordance with subdivision 5 of this subsection. (See the NRC's website at www.nrc.gov for more information on submitting fingerprints, including pricing and address changes). The licensee shall review the information received from the FBI and consider it, in conjunction with the trustworthiness and reliability requirements of subdivision B 1 of this section, in making a determination whether to grant unescorted access to certain radioactive materials;

e. The licensee shall use any information obtained as part of a criminal history records check solely for the purpose of determining an individual's suitability for unescorted access to risk significant radioactive materials equal to or greater than the quantities listed in subsection A of this section; and

f. The licensee shall document the basis for its determination whether to grant or continue to allow unescorted access to risk significant radioactive materials equal to or greater than those listed in subsection A of this section.

2. Prohibitions. A licensee shall not base a final determination to deny an individual unescorted access to certain radioactive material solely on the basis of information received from the FBI involving: an arrest more than one year old for which there is no information of the disposition of the case, or an arrest that resulted in dismissal of the charge or an acquittal. A licensee shall not use information received from a criminal history check obtained pursuant to 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 the licensee use the information in any way that would discriminate among individuals on the basis of race, religion, national origin, sex, or age.

3. Right to correct and complete information. Prior to any final adverse determination, the licensee shall make available to the individual the contents of any criminal records obtained from the FBI for the purpose of assuring correct and complete information. Written confirmation by the individual of receipt of this notification must be maintained by the licensee for a period of one year from the date of the notification. If, after reviewing the record, an individual believes that it is incorrect or incomplete in any respect and wishes to change, correct, or update the alleged deficiency, or to explain any matter in the record, the individual may initiate challenge procedures. These procedures include either direct application by the individual challenging the record to the agency (i.e., law-enforcement agency) that contributed the questioned information, or direct challenge as to the accuracy or completeness of any entry on the criminal history record to the Assistant Director, Federal Bureau of Investigation Identification Division, Washington, DC 20537-9700. In the latter case, the FBI forwards the challenge to the agency that submitted the data and requests that agency to 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.

The licensee must provide at least 10 days for an individual to initiate an action challenging the results of an FBI identification and criminal history records check after the record is made available for his review. The licensee may make a final unescorted access to certain radioactive material determination based upon the criminal history record only upon receipt of the FBI's ultimate confirmation or correction of the record. Upon a final adverse determination on unescorted access to certain radioactive material, the licensee shall provide the individual its documented basis for denial. Unescorted access to certain radioactive material shall not be granted to an individual during the review process.

4. Protection of information.

a. Each licensee who obtains a criminal history record on an individual pursuant to this section shall establish and maintain a system of files and procedures for protecting 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 representative, or to those who have a need to access the information in performing assigned duties in the process of determining unescorted access to certain radioactive material. No individual authorized to have access to the information may re-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 criminal history record check may be transferred to another licensee if the licensee holding the criminal history record check receives the individual's written request to re-disseminate the information contained in his file, and the gaining licensee verifies information such as the individual's name, date of birth, social security number, sex, and other applicable physical characteristics for identification purposes.

d. The licensee shall make criminal history records obtained under this section available for examination by an authorized representative of VDH to determine compliance with the regulations.

e. The licensee shall retain all fingerprints and criminal history records from the FBI, or a copy if the individual's file has been transferred, for three years after termination of employment or determination of unescorted access to certain radioactive material (whether unescorted access was approved or denied). After the required three-year period, these documents shall be destroyed by a method that will prevent reconstruction of the information in whole or in part.

5. Trustworthy & Reliability Official.

a. The licensee shall provide under oath or affirmation, a certification to the agency that the T & R Official (an individual with the responsibility to determine the trustworthiness and reliability of another individual requiring unescorted access to the radioactive materials identified in subsection A of this section) is deemed trustworthy and reliable by the licensee as required in subdivision 5 b below.

b. The T & R Official, if he does not require unescorted access, must be deemed trustworthy and reliable by the licensee in accordance with the requirements of subdivision B 1 of this section before making a determination regarding the trustworthiness and reliability of another individual. If the T & R Official requires unescorted access, the licensee must consider the results of fingerprinting and the review of an FBI identification and criminal history records check as a component in approving a T & R Official.

6. The licensee shall notify the agency at (804) 864-6168 within 24 hours if the results from an FBI identification and criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Data Base.

7. Prior to requesting fingerprints from any individual, the licensee shall provide a copy of 12VAC5-481-451 to that individual.

Statutory Authority

§ 32.1-229 of the Code of Virginia.

Historical Notes

Derived from Virginia Register Volume 24, Issue 25, eff. October 3, 2008.
