Kansas Administrative Regulations

Department of Health and Environment

Article 35.—Radiation—Part 4. Standards for Protection Against Radiation.

28-35-221a. Procedures for picking up, transporting, receiving, and opening packages.

(a)(1) Each licensee or registrant who expects to receive a package containing quantities of radioactive material in excess of the type A quantities specified in K.A.R. 28-35-221b shall meet one of the following requirements:

(A) If the package is to be delivered to the licensee's or registrant's facility by the carrier, make arrangements to receive the package when it is offered for delivery by the carrier; or

(B) if the package is to be picked up by the licensee or registrant at the carrier's terminal, make arrangements to receive notification from the carrier of the arrival of the package, at the time of arrival.

(2) Each licensee or registrant who picks up a package of radioactive material from a carrier's terminal shall pick up the package upon receipt of notification from the carrier of the arrival of the package.

(b) Each licensee or registrant shall ensure that external radiation levels around any package specified in subsection (a) and, if applicable, external radiation levels around the vehicle transporting the package do not exceed 200 millirems per hour (2 mSv/hr) at any point on the external surface of the package or vehicle at any time during transportation. The transport index shall not exceed 10.

(c)(1) For the purpose of this subsection, "exclusive use" shall have the meaning specified in 10 C.F.R. 71.4, dated January 1, 2015 and hereby adopted by reference.

(2) For each package specified in subsection (a) and transported in exclusive use, radiation levels external to the package may exceed the limits specified in subsection (d) but shall not exceed any of the following:

(A) 200 millirems per hour (2 mSv/hr) on the accessible external surface of the package unless the following conditions are met, in which case the limit shall be 1,000 millirems per hour (10 mSv/hr):

(i) The shipment is made in a closed transport vehicle. For the purposes of this subsection, "closed transport vehicle" shall mean a vehicle or conveyance equipped with a securely attached exterior enclosure that, during normal transportation, restricts the access of unauthorized persons to the cargo space containing a package specified in subsection (a). The enclosure can be either temporary or permanent and, in the case of packaged materials, can be the see-through type that limits access from top, sides, and bottom;

(ii) the package is secured so that its position within the closed transport vehicle remains fixed during transportation; and

(iii) no loading or unloading operations occur between the beginning and end of the transportation;

(B) 200 millirems per hour (2 mSv/hr) at any point on the outer surface of the closed transport vehicle, including the upper and lower surfaces, or for a flatbed-style closed transport vehicle with a personnel barrier, at any point on the vertical planes projected from the outer edges of the closed transport vehicle, on the upper surface of the load, and on the lower external surface of the closed transport vehicle;

(C) 10 millirems per hour (0.1 mSv/hr) at any point two meters from the vertical planes represented by the outer lateral surfaces of the closed transport vehicle, or, in the case of a flatbed-style closed transport vehicle, at any point two meters from the vertical planes projected from the outer edges of the closed transport vehicle; or

(D) two millirems per hour (0.02 mSv/hr) in any normally occupied positions in the closed transport vehicle, except that this paragraph shall not apply to private motor carriers if each person occupying any of these positions in the closed transport vehicle is provided with a personnel-monitoring device and training in accordance with K.A.R. 28-35-333.

(d) Each licensee or registrant, upon receipt of any package of radioactive material, shall monitor the external surfaces of each package labeled with the U.S. department of transportation radioactive white I or radioactive yellow II or III labels, as specified in 49

C.F.R. 172.403 and 172.436-440, for radioactive contamination caused by leakage of the radioactive contents. Each licensee or registrant shall also monitor for radiation levels of each package containing quantities of radioactive materials that are equal to or more than the type A quantity specified in 10 C.F.R. part 71, appendix A, which is adopted by reference in K.A.R. 28-35-221b. Each licensee or registrant shall monitor each package known to contain radioactive materials for radioactive contamination and radiation levels if there is evidence of degradation of package integrity. The monitoring shall be performed as soon as practicable after receipt, but not later than three hours after the package is received at the licensee's facility if received during the licensee's normal working hours or three hours from the beginning of the next working day if received after normal working hours. The licensee or registrant shall immediately notify the final delivery carrier and, by telephone, the department under either of the following conditions:

(1) Removable radioactive surface contamination exceeds the following maximum permissible limits:

Contaminant	**Maximum Permissible Limits**		
	Bq/cm^2	**uCi/cm^2**	**dpm/cm^2**
Beta and gamma emitters and low-toxicity alpha emitters	4	10^{-4}	220
All other alpha-emitting radionuclides	0.4	10^{-5}	22

(2) External radiation levels exceed the limits specified in 10 C.F.R. part 71, appendix A, which is adopted by reference in K.A.R. 28-35-221b.

(e) Each licensee or registrant shall establish and maintain procedures for safely opening packages in which radioactive material is received and shall ensure that these procedures are followed and any special instructions are followed for the type of package being opened.

(f) Each licensee or registrant transferring special form sources in vehicles owned or operated by the licensee or registrant to and from a work site shall be exempt from the contamination monitoring requirements of this regulation. However, the licensee or registrant shall not be exempt from the monitoring requirement in this regulation for measuring radiation levels that ensures that the source is still properly lodged in its shield.

(Authorized by and implementing K.S.A. 48-1607; effective, T-85-43, Dec. 19, 1984; effective May 1, 1985; amended Sept. 20, 1993; amended Oct. 17, 1994; amended May 4, 2018.)

***** Authenticated Kansas Administrative Regulation *****