Kansas Administrative Regulations

Department of Health and Environment

Article 35.—Radiation—Part 3. Licensing of Sources of Radiation.

28-35-192c. Exceptions; other radioactive material.

Except for persons who apply tritium, promethium-147, or radium to, or persons who incorporate tritium, promethium-147, or radium into, the products listed in this regulation, each person who only acquires, possesses, uses, or transfers any of the following products shall be exempt from these regulations:

(a) Timepieces or hands or dials containing radium, or timepieces, hands, or dials containing not more than the following specified quantities of other radioactive materials:

(1) 25 millicuries of tritium per timepiece;

(2) 5 millicuries of tritium per hand;

(3) 15 millicuries of tritium per dial. Bezels, when used, shall be considered as part of the dial;

(4) 100 microcuries of promethium-147 per watch or 200 microcuries of promethium-147 per any other timepiece;

(5) 20 microcuries of promethium-147 per watch hand or 40 microcuries of promethium-147 per hand on other timepieces;

(6) 60 microcuries of promethium-147 per watch dial or 120 microcuries of promethium-147 per dial on other timepieces. Bezels, when used, shall be considered as part of the dial. The levels of radiation from hands and dials containing promethium-147 shall not exceed the following, when measured through 50 milligrams per square centimeter of absorber:

(A) For wrist watches, 0.1 millirad per hour at 10 centimeters from any surface;

(B) for pocket watches, 0.1 millirad per hour at one centimeter from any surface; and

(C) for any other timepiece, 0.2 millirad per hour at 10 centimeters from any surface; and

(7) for intact timepieces manufactured before November 30, 2007, 0.037 megabecquerel (1 microcurie) of radium-226 per timepiece;

(b) balances of precision containing not more than one millicurie of tritium per balance or not more than 0.5 millicurie of tritium per balance part manufactured before December 17, 2007;

(c) marine compasses containing not more than 750 millicuries of tritium gas and other marine navigational instruments containing not more than 250 millicuries of tritium gas manufactured before December 17, 2007;

(d) ionization chamber smoke detectors containing not more than one microcurie (μCi) of americium-241 per detector in the form of a foil and designed to protect life and property from fires;

(e) electron tubes. The levels of radiation from each electron tube containing radioactive material shall not exceed one millirad per hour at one centimeter from any surface when measured through seven milligrams per square centimeter of absorber. For purposes of this subsection, "electron tubes" shall include spark gap tubes, power tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator tubes, pickup tubes, radiation detection tubes, and any other completely sealed tube that is designed to conduct or control electrical currents. An electron tube shall not contain more than one of the following specified quantities of radioactive material:

(1) 150 millicuries of tritium per microwave receiver protector tube or 10 millicuries of tritium per any other electron tube;

(2) 1 microcurie cobalt-60;

(3) 5 microcuries nickel-63;

(4) 30 microcuries krypton-85;

(5) 5 microcuries cesium-137; or

(6) 30 microcuries promethium-147; and

(f) ionizing radiation-measuring instruments containing, for purposes of internal calibration or standardization, sources of radioactive material. No source shall exceed the applicable quantity specified in K.A.R. 28-35-197b. No single instrument shall contain more than 10 sources. For the purposes of this subsection, μ0.05 Ci of Am-241 shall be considered an exempt quantity.

(Authorized by and implementing K.S.A. 48-1607; effective, T-86-37, Dec. 11, 1985; effective May 1, 1986; amended March 18, 2011; amended May 4, 2018.)

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