Kansas Administrative Regulations

Department of Health and Environment

Article 35.—Radiation—Part 2. Radiation Producing Machines.

28-35-167. Shielding plan for radiation-producing devices.

(a) Before construction, the floor plan or plans, shielding specifications, and equipment arrangement of all new installations, or modifications of existing installations, utilizing ionizing radiation machines shall be submitted to the department for review and consideration for approval, with the information specified in K.A.R. 28-35-168 and K.A.R. 28-35-169 of this part.

(b) If the applicant is not a qualified expert, then the applicant may be required to utilize the services of a qualified expert to determine the shielding specifications before the secretary's review and consideration for approval of the shielding plan.

(c) The approval of the shielding specifications shall not preclude the requirement of additional modifications if a subsequent analysis of operating conditions indicates the possibility that an individual could receive a dose in excess of the limits prescribed in K.A.R. 28-35-212a and K.A.R. 28-35-214a.

(d) After installation of each radiation machine, the registrant shall maintain the following records for inspection by the department:

(1) The maximum rated technique factors of the machine;

(2) a scale drawing of the room in which the stationary radiation machine system is located. This drawing shall indicate the use of areas adjacent to the room and an estimation of the extent of occupancy by an individual in these areas. The drawing shall include either of the following:

(A) The results of a survey for radiation levels present at the operator's position and at points surveyed outside the room, and the specific test conditions used; or

(B) the type and thickness of materials, or the lead equivalency, of each protective barrier.

(e) A qualified expert, who shall be approved by the department, shall be consulted in the design of each particle accelerator installation and shall be called upon to perform a radiation survey when the accelerator is first capable of producing radiation.

(f) Each particle accelerator installation shall be provided with any primary or secondary barriers, or both, that are necessary to ensure compliance with the following:

(1) K.A.R. 28-35-212a;

(2) K.A.R. 28-35-212c;

(3) K.A.R. 28-35-212d;

(4) K.A.R. 28-35-212f;

(5) K.A.R. 28-35-212g;

(6) K.A.R. 28-35-213a;

(7) K.A.R. 28-35-214a; and

(8) K.A.R. 28-35-214b.

(Authorized by and implementing K.S.A. 48-1607; effective Dec. 30, 2005.)

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