37.14.1002 DEFINITIONS

As used in this subchapter:

(1) "Aluminum equivalent" means the thickness of aluminum affording the same attenuation, under specified conditions, as the material in question.

(2) "Diagnostic-type tube housing" means an x-ray tube housing so constructed that leakage radiation at a distance of one meter from the target cannot exceed 100 milliroentgens in one hour when the tube is operated at any of its specified ratings.

(3) "Enabling switch or momentary switch" means an underwriters laboratory (UL) or factory mutual (FM) switch so constructed that a single depression by the operator will provide a single exposure and that continuous pressure by the operator does not provide a continuous or multiple exposure.

(4) "Filter" means material placed in the useful beam to absorb preferentially the less penetrating radiations.

(5) "Half-value layer (hvl) " means the thickness of an absorber required to reduce a beam of radiation to one-half its incident exposure rate.

(6) "Inherent filtration" means the filtration in the useful beam due to the window of the x-ray tube and any permanent tube enclosure.

(7) "Interlock" means a device for precluding access to an area of radiation hazard either by preventing entry or by automatically removing the hazard.

(8) "Kilovolts peak (kVp) " means the crest value in kilovolts of the potential of a pulsating potential generator. When only one-half of the wave is used, the value refers to the useful half of the wave.

(9) "Lead equivalent" means the thickness of lead affording the same attenuation, under specified conditions, as the material in question.

(10) "Leakage radiation" means all radiation coming from within the tube housing except the useful beam.

(11) "NCRP" means the national council on radiation protection and measurements.

(12) "Primary protective barrier" means a barrier sufficient to attenuate the useful beam to the required degree.

(13) "Protective apron" means an apron made of attenuating materials used to reduce radiation exposure.

(14) "Protective barrier" means a barrier of attenuating materials used to reduce radiation exposure.

(15) "Protective glove" means a glove made of attenuating materials used to reduce radiation exposure.

(16) "Qualified expert" means a health physicist, medical physicist, radiologist, or other individual who can competently perform the calculations necessary to provide shielding requirements within the standards of this chapter.

(17) "Scattered radiation" means radiation that, during passage through matter, has been deviated in direction.

(18) "Secondary protective barrier" means a barrier sufficient to attenuate stray radiation to the required degree.

(19) "Shutter" means a device, generally of lead, fixed to an x-ray tube housing to intercept the useful beam.

(20) "Stray radiation" means radiation not serving any useful purpose. It includes leakage and secondary radiation.

(21) "Therapeutic-type tube housing" means an x-ray tube housing so constructed that the leakage radiation at a distance of one meter from the target cannot exceed one roentgen in one hour; and at a distance of five centimeters from any point on the surface of the housing accessible to the patient cannot exceed 30 roentgens in one hour when the tube is operated at any of its specified ratings.

(22) "Useful beam" means that part of the radiation which passes through the window, aperture, cone, or other collimating device of the tube housing.

Authorizing statute(s): Sec. 50-79-201 and 75-3-201, MCA

Implementing statute(s): Sec. 50-79-101, 50-79-102, 50-79-103 and 75-3-201, MCA

History: NEW, 1980 MAR p. 1069, Eff. 3/28/80; TRANS, from DHES, 1996 MAR p. 433; TRANS, from DEQ, 2000 MAR p. 189; AMD, 2003 MAR p. 1291, Eff. 7/1/03; AMD, 2003 MAR p. 2443, Eff. 10/31/03.