37.14.1105 INTERSTITIAL , INTRACAVITARY AND SUPERFICIAL APPLICATIONS

(1) Sealed sources shall be accounted for, stored and transported as follows:

(a) Except as otherwise specifically authorized by the department, each licensee shall provide accountability of sealed sources and shall keep a record of the issue and return of all sealed sources. A physical inventory shall be made at least every 6 months and a written record of the inventory maintained.

(b) When not in use, sealed sources and applicators containing sealed sources shall be kept in a protective enclosure of such material and wall thickness as may be necessary to assure compliance with the provisions of ARM 37.14.705, 37.14.708 and 37.14.709.

(2) Sealed sources shall be tested for leakage and contamination as follows:

(a) All sealed sources with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination prior to initial use and at intervals not to exceed 6 months, unless otherwise specified. If there is reason to suspect that a sealed source might have been damaged, or might be leaking, it shall be tested for leakage before further use.

(b) Leak tests shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample or, in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours. Any test conducted pursuant to (a) above which reveals the presence of 0.005 microcurie or more of removable contamination or, in the case of radium, the escape of radon at the rate of 0.001 microcurie or more per 24 hours, shall be considered evidence that the sealed source is leaking. The licensee shall immediately withdraw the source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with applicable provisions of ARM Title 37, chapter 14, subchapter 7.

(c) Leak test results shall be recorded in units of microcuries and maintained for inspection by the department.

(3) Radiation surveys shall be conducted as follows:

(a) The maximum radiation level at a distance of 1 meter from the patient in whom brachytherapy sources have been inserted shall be determined by measurement or calculation. This radiation level shall be entered on the patient's chart and other signs as required under (4) of this rule.

(b) The radiation levels in the patient's room and the surrounding area shall be determined, recorded, and maintained for inspection by the department.

(4) Signs and records shall be maintained as follows:

(a) In addition to the requirements of ARM 37.14.725, the bed, cubicle, or room of the hospital brachytherapy patient shall be marked with a sign indicating the presence of brachytherapy sources. This sign shall incorporate the radiation symbol and specify the radionuclide, the activity, date and the individual to contact for radiation safety instructions. The sign is not required provided the exception in ARM 37.14.726(2) is met.

(b) The following information shall be included in the patient's chart:

(i) the radionuclide administered, number of sources, activity in millicuries and time and date of administration;

(ii) the exposure rate at 1 meter, the time the determination was made, and by whom;

(iii) the radiation symbol; and

(iv) the precautionary instructions necessary to assure that the exposure of individuals does not exceed that permitted under ARM 37.14.705.

Authorizing statute(s): Sec. 75-3-201 and 75-3-202, MCA

Implementing statute(s): Sec. 75-3-201 and 75-3-202, 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.