

**Testing for leakage or contamination of sealed sources.**

- (A) The licensee in possession of any sealed source not subject to the testing requirements of rule 3701:1-46-05, 3701:1-48-09, 3701:1-49-07, 3701:1-52-22, or 3701:1-58-27 of the Administrative Code, shall assure that:
- (1) Each sealed source, except as specified in paragraph (B) of this rule, is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee has a certificate from the transferor indicating that the sealed source was tested within six months before transfer to the licensee;
  - (2) Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed six months or at alternative intervals as specified in the sealed source and device registry sheet;
  - (3) Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed three months or at alternative intervals as specified in the sealed source and device registry sheet;
  - (4) For each sealed source that is required to be tested for leakage or contamination, at any other time there is reason to suspect that the sealed source might have been damaged or might be leaking, the licensee shall assure that the sealed source is tested for leakage or contamination before further use;
  - (5) Tests for leakage for all sealed sources shall be capable of detecting the presence of one hundred eighty-five becquerels (0.005 microcurie) of radioactive material on a test sample. Test samples shall be taken from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which one might expect contamination to accumulate. For a sealed source contained in a device, test samples are obtained when the source is in the off position;
- (B) A licensee need not perform tests for leakage or contamination on the following sealed sources:
- (1) Sealed sources containing only radioactive material with a half-life of less than thirty days;
  - (2) Sealed sources containing only radioactive material as a gas;
  - (3) Sealed sources containing 3.7 megabecquerels (one hundred microcuries) or less of beta or photon emitting material or three hundred seventy kilobecquerels (ten microcuries) or less of alpha-emitting material;
  - (4) Sealed sources containing only hydrogen-3;
  - (5) Seeds of iridium-192 encased in nylon ribbon; and

- (6) Sealed sources which are stored, not being used and identified as in storage. The licensee shall, however, test each such sealed source for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within six months before the date of use or transfer.
- (C) Tests for leakage or contamination from sealed sources shall be performed by persons specifically authorized by the director, an agreement state, or the United States nuclear regulatory commission to perform such services.
- (D) Test results shall be kept in units of becquerel or microcurie and maintained for inspection by the director. Records of test results for sealed sources shall be made pursuant to paragraph (E) of rule 3701:1-38-20 of the Administrative Code.
- (E) A sealed source shall be considered to be leaking if the presence of one hundred eighty-five becquerels (0.005 microcurie) or more of removable contamination on any test sample is identified.
- (F) The licensee shall immediately withdraw a leaking sealed source from use and shall take action to prevent the spread of contamination. The leaking sealed source shall be repaired or disposed of in accordance with this chapter.
- (G) Reports of test results for leaking or contaminated sealed sources shall be made pursuant to paragraph (F) of rule 3701:1-38-21 of the Administrative Code.

Five Year Review (FYR) Dates: 07/01/2015 and 07/01/2020

CERTIFIED ELECTRONICALLY

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Certification

07/01/2015

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Date

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