

**4731.7070 LEAK TESTING; SEALED SOURCES.**

Subpart 1. **Testing and record keeping requirements.** A licensee that uses a sealed source must have the source periodically tested for leakage. The licensee must keep a record of leak test results in units of microcuries and retain the record for inspection by the commissioner for three years after the leak test is performed.

Subp. 2. **Method of testing.** The wipe of a sealed source must be performed using a leak test kit or method approved by the commissioner, the NRC, or an agreement state. The wipe sample must be taken from the nearest accessible point to the sealed source where contamination might accumulate. The wipe sample must be analyzed for radioactive contamination. The analysis must be capable of detecting the presence of 0.005 microcuries (185 Bq) of radioactive material on the test sample and must be performed by a person approved by the commissioner, the NRC, or an agreement state to perform the analysis.

Subp. 3. **Test frequency.**

A. Each sealed source, except an energy compensation source (ECS), must be tested at intervals not to exceed six months. In the absence of a certificate from a transferor that a test has been made within the six months before the transfer, the sealed source may not be used until tested.

B. Each ECS that is not exempt from testing under subpart 5 must be tested at intervals not to exceed three years. In the absence of a certificate from a transferor that a test has been made within the three years before the transfer, the ECS may not be used until tested.

Subp. 4. **Removal of leaking source from service.**

A. If the test conducted under subparts 1 and 2 reveals the presence of 0.005 microcuries (185 Bq) or more of removable radioactive material, the licensee must remove the sealed source from service immediately and have it decontaminated, repaired, or disposed of by a person licensed by the commissioner, the NRC, or an agreement state to perform these functions. The licensee must check the equipment associated with the leaking source for radioactive contamination and, if contaminated, have it decontaminated or disposed of by a person licensed by the commissioner, the NRC, or an agreement state to perform these functions.

B. The licensee must submit a report to the commissioner within five days of receiving the test results. The report must:

- (1) describe the equipment involved in the leak;
- (2) include the test results;
- (3) describe any contamination that resulted from the leaking source; and

(4) describe the corrective actions taken up to the time the report is made.

Subp. 5. **Exemptions.** The following sealed sources are exempt from the periodic leak test requirements under this part:

- A. hydrogen-3 (tritium) sources;
- B. sources containing licensed material with a half-life of 30 days or less;
- C. sealed sources containing licensed material in gaseous form;
- D. sources of beta- or gamma-emitting radioactive material with an activity of 100 microcuries (3.7 MBq) or less; and
- E. sources of alpha- or neutron-emitting radioactive material with an activity of ten microcuries (0.37 MBq) or less.

**Statutory Authority:** *MS s 144.1202; 144.1203*

**History:** *29 SR 755*

**Published Electronically:** *March 12, 2009*