

**§ 39.35 Leak testing of sealed sources.**

(a) *Testing and recordkeeping requirements.* Each licensee who uses a sealed source shall have the source tested for leakage periodically. The licensee shall keep a record of leak test results in units of microcuries and retain the record for inspection by the Commission for 3 years after the leak test is performed.

(b) *Method of testing.* The wipe of a sealed source must be performed using a leak test kit or method approved by the Commission 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 185 Bq [0.005 microcuries] of radioactive material on the test sample and must be performed by a person approved by the Commission or an Agreement State to perform the analysis.

(c) *Test frequency.* (1) Each sealed source (except an energy compensation source (ECS)) must be tested at intervals not to exceed 6 months. In the absence of a certificate from a transferor that a test has been made within the 6 months before the transfer, the sealed source may not be used until tested.

(2) Each ECS that is not exempt from testing in accordance with paragraph (e) of this section must be tested at intervals not to exceed 3 years. In the absence of a certificate from a transferor that a test has been made within the 3 years before the transfer, the ECS may not be used until tested.

(d) *Removal of leaking source from service.* (1) If the test conducted pursuant to paragraphs (a) and (b) of this section reveals the presence of 185 Bq [0.005 microcuries] or more of removable radioactive material, the licensee shall remove the sealed source from service immediately and have it decontaminated, repaired, or disposed of by an NRC or Agreement State licensee that is authorized to perform these functions. The licensee shall check the equipment associated with the leaking source for radioactive contamination and, if contaminated, have it decontaminated or disposed of by an NRC or

Agreement State licensee that is authorized to perform these functions.

(2) The licensee shall submit a report to the appropriate NRC Regional Office listed in appendix D of part 20 of this chapter, within 5 days of receiving the test results. The report must describe the equipment involved in the leak, the test results, any contamination which resulted from the leaking source, and the corrective actions taken up to the time the report is made.

(e) *Exemptions from testing requirements.* The following sealed sources are exempt from the periodic leak test requirements set out in paragraphs (a) through (d) of this section:

- (1) Hydrogen-3 (tritium) sources;
- (2) Sources containing licensed material with a half-life of 30 days or less;
- (3) Sealed sources containing licensed material in gaseous form;
- (4) Sources of beta- or gamma-emitting radioactive material with an activity of 3.7 MBq [100 microcuries] or less; and
- (5) Sources of alpha- or neutron-emitting radioactive material with an activity of 0.37 MBq [10 microcuries] or less.

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**§ 39.37 Physical inventory.**

Each licensee shall conduct a semi-annual physical inventory to account for all licensed material received and possessed under the license. The licensee shall retain records of the inventory for 3 years from the date of the inventory for inspection by the Commission. The inventory must indicate the quantity and kind of licensed material, the location of the licensed material, the date of the inventory, and the name of the individual conducting the inventory. Physical inventory records may be combined with leak test records.

**§ 39.39 Records of material use.**

(a) Each licensee shall maintain records for each use of licensed material showing—

- (1) The make, model number, and a serial number or a description of each sealed source used;
- (2) In the case of unsealed licensed material used for subsurface tracer