Ohio Administrative Code

Rule 3701:1-48-09 Leak testing and replacement of sealed sources.

Effective: January 1, 2012

(A) The replacement of any sealed source fastened to or contained in a radiographic exposure device and leak testing of any sealed source must be performed by persons authorized by the director, the United States nuclear regulatory commission, or an agreement state to do so.

(B) The opening, repair, or modification of any sealed source must be performed by persons specifically authorized by the director, the United States nuclear regulatory commission, or an agreement state to do so.

(1) Each licensee who uses a sealed source shall have the source tested for leakage at intervals not to exceed six months. The leak testing of the source must be performed using a method approved by the director, the United States nuclear regulatory commission or by an agreement state. The wipe sample should 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 one hundred eighty-five becquerels (0.005 microcurie) of radioactive material on the test sample and must be performed by a person specifically authorized by the director, the United States nuclear regulatory commission, or an agreement state to perform the analysis.

(2) The licensee shall maintain records of the leak tests in accordance with paragraph (D) of rule 3701:1-48-23 of the Administrative Code.

(3) Unless a sealed source is accompanied by a certificate from the transferor that shows that it has been leak tested within six months before the transfer, it may not be used by the licensee until tested for leakage. Sealed sources that are in storage and not in use do not require leak testing, but must be tested before use or transfer to another person if the interval of storage exceeds six months.

(D) Any test conducted pursuant to paragraph (C) of this rule which reveals the presence of one hundred eighty-five becquerels (0.005 microcurie) or more of removable radioactive material must

be considered evidence that the sealed source is leaking. The licensee shall immediately withdraw the equipment involved from use and shall have it decontaminated and repaired or disposed of in accordance with department rules. A report must be filed with the director, within five days of any test with results that exceed the threshold in this paragraph, describing the equipment involved, the test results, and the corrective action taken.

(E) Each exposure device using depleted uranium shielding and an S-tube configuration must be tested for depleted uranium contamination at intervals not to exceed twelve months. The analysis must be capable of detecting the presence of one hundred eighty-five becquerels (0.005 microcurie) of radioactive material on the test sample and must be performed by a person specifically authorized by the director, the United States nuclear regulatory commission or an agreement state to perform the analysis. Should such testing reveal the presence of one hundred eighty-five becquerels (0.005 microcurie) or more of removable depleted uranium contamination, the exposure device must be removed from use until an evaluation of the wear of the S-tube has been made. Should the evaluation reveal that the S-tube is worn through, the device may not be used again. Depleted uranium shielded devices do not have to be tested for depleted uranium contamination while in storage and not in use. Before using or transferring such a device, however, the device must be tested for depleted uranium contamination, if the interval of storage has exceeded twelve months. A record of the depleted uranium leak-test must be made in accordance with paragraph (D) of rule 3701:1-48-23 of the Administrative Code.