

U.S. NUCLEAR REGULATORY COMMISSION

**Amendment No. 44**

**MATERIALS LICENSE**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

*12-00722-10* *5/15/11*

<p style="text-align: center;">Licensee</p> <p>1. Department of the Army Commander, Rock Island Arsenal Joint Manufacturing and Technology Center</p> <p>2. TACOM LCMC Rock Island, IL 61299-5000</p>	<p>In accordance with the letter received <b>April 10, 2012</b>,</p> <p>3. License number 12-00722-10 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date August 31, 2014</p> <hr/> <p>5. Docket No. 030-20107 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Americium-241</p> <p>B. Any byproduct material or source material, excluding materials that primarily emit gamma photons</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. No single source to exceed 0.1 microcuries. Not to exceed 1.0 microcuries total.</p> <p>B. 5 millicuries</p>
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9. Authorized Use:

A. and B. For use in performing leak tests, sample and wipe test analysis, and instrument calibration.

CONDITIONS

- 10. Licensed material shall be possessed and/or used only at the licensee's facilities located at Joint Manufacturing and Technology Center, Building 210, Rodman Avenue, Rock Island Arsenal, Rock Island, IL.
- 11. Licensed material shall be used by, or under the supervision of, Mary L. Pettit, Ronald J. Lund or individuals who have received the training described in letter dated January 7, 2011.
- 12. A. The Radiation Safety Officer for this license is Mary L. Pettit.
- B. The Alternate Radiation Safety Officer for this license is Ronald J. Lund.

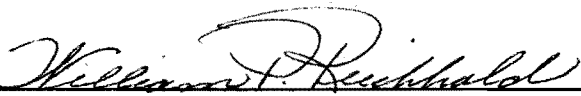
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13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
14. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed 3 years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Sealed sources need not be leak tested if:
- (i) they contain only hydrogen-3; or
  - (ii) they contain only a radioactive gas; or
  - (iii) the half-life of the isotope is 30 days or less; or
  - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
  - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- E. **The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.**
- F. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
15. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

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16. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
17. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Letter dated January 7, 2011 (received March 25, 2011) and;
  - B. Letter dated May 19, 2011; and
  - C. **Letter received April 10, 2012.**

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date MAY 16 2012By   
William P. Reichhold  
Materials Licensing Branch  
Region III