

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.

<p style="text-align: center;">Licensee</p> <p>1. Department of the Army U.S. Army Communications-Electronics Command (CECOM)</p> <p>2. Attn: AMSEL-SF-R 3200 Raritan Avenue Aberdeen Proving Ground, Maryland 21005</p>	<p>In accordance with the letter dated August 24, 2012,</p> <p>3. License number 19-31447-02 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date May 31, 2017</p> <hr/> <p>5. Docket No. 030-38479 Reference No. 29-01022-06, 030-05248</p>
--	--

- | | | |
|---|----------------------------------|--|
| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that licensee may possess at any one time under this license |
|---|----------------------------------|--|

Outside of Scope

- | | | |
|-----------------|-------------------------------------|--------------------|
| I. Strontium 90 | I. Sealed Source
(3M Model 3F1G) | I. 100 millicuries |
|-----------------|-------------------------------------|--------------------|

Outside of Scope

Information in this record was deleted in accordance with the Freedom of Information Act Exemptions Outside Scope
FOIA/PA 2013-0003

C-20

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
19-31447-02

Docket or Reference Number
030-38479
29-01022-06, 03005248

Amendment No. 2

- 6. Byproduct, source, and/or special nuclear material
- 7. Chemical and/or physical form
- 8. Maximum amount that licensee may possess at any one time under this license

Outside of Scope

9. Authorized use:

~~Official Use Only - Security-Related Information~~

NRC FORM 374A

PAGE 3 OF 6 PAGES

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
19-31447-02

Docket or Reference Number
030-38479
29-01022-06, 03005248

Amendment No. 2

- A. through U. Research and development as defined in 10 CFR 30.4; teaching and training of students; calibration and checking of the licensee's instruments; analysis of test samples as a service for persons as defined in 10 CFR 20.1003; calibration and checking of the instruments as a service for persons as defined in 10 CFR 20.1003.
- J. In a J. L. Shepherd Model 142-10 instrument calibrator.
- K. In a J. L. Shepherd Model 81-14Q calibrator; calibration of instruments as a service for persons as defined in 10 CFR 20.1003.
- L. In a SAIC Military Mobile Vehicle and Cargo Inspection System for detection of materials.
- T. In a J. L. Shepherd Model 89 series calibrator with a 78 series source shield.
- U. In a Hopewell Designs, Inc. G10 series instrument calibrator.

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at the U.S. Army CECOM, facilities located on Aberdeen Proving Ground, Maryland; and at temporary job sites of the licensee anywhere in the United States.
11. Licensed material shall only be used by, or under the supervision of, individuals designated, in writing, by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
12. The Radiation Safety Officer for this license is Craig S. Goldberg.
13. The licensee will comply with the requirements for the "Order Imposing Increased Controls" (ADAMS Accession No. ML053130183) published in the Federal Register on December 1, 2005 (70 FR 72128); and with the "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Unescorted Access to Certain Radioactive Materials" (fingerprinting Order) (ADAMS Accession No. ML073230738) published in the Federal Register on December 13, 2007 (72 FR 70901). The licensee will complete implementation of said requirements by the first day that radionuclides in quantities of concern are possessed at or above the limits specified in "Table 1: Radionuclides of Concern" contained within the fingerprinting Order. Notwithstanding any provisions of the Commission's regulations to the contrary, all measures implemented or actions taken in response to these Orders shall be maintained until the Commission orders otherwise, or until the Commission explicitly modifies its regulations to reflect the increased controls and fingerprinting requirements, and states in modifying its regulations, that the revisions are to supersede these Orders. The licensee shall notify the Director, Office of Federal and State Materials and Environmental Management Programs, U. S. NRC, Washington, DC, 20555, in writing, within 25 days after it has completed the requirements of this condition. In addition, licensee responses applicable to this license condition shall be marked as "Withhold From Public Disclosure Under 10 CFR 2.390."
14. The licensee shall not use licensed material in or on human beings.

~~Official Use Only - Security-Related Information~~

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
19-31447-02

Docket or Reference Number
030-38479
29-01022-06, 03005248

Amendment No. 2

15. The licensee shall not use licensed material in field applications where it is released except as provided otherwise by specific condition of this license.
16. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- D. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- E. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- F. Sealed sources need not be tested if they 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- G. 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.
- H. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
19-31447-02

Docket or Reference Number
030-38479
29-01022-06, 03005248

Amendment No. 2

performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

- I. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
17. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
18. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
19. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
 - A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and
 - B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and
 - C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.
20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number 19-31447-02
Docket or Reference Number 030-38479 29-01022-06, 03005248
Amendment No. 2

21. 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 February 15, 1995 [ML062620389]
- B. Letter dated March 10, 1997 [ML062630121]
- C. Letter dated April 11, 1997 [ML062630209]
- D. Letter dated May 12, 1997 [ML062630227]
- E. Letter dated December 2, 1997 [ML062630233]
- F. Letter dated April 13, 2000 [ML003710928]
- G. Letter dated April 30, 2000 (electronic mail) [ML003711089]
- H. Letter dated July 27, 2000 [ML003738146]
- I. Letter dated August 10, 2001 [ML012270136]
- J. Letter and application dated February 23, 2005 [ML070040409]
- K. Application dated November 30, 2010 with Attachments (ML103500383)
- L. Letter dated February 2, 2011 except Supplement C and attached DVD (ML110380465)
- M. Letter dated July 25, 2012 [ML12226A403]

For the U.S. Nuclear Regulatory Commission

Date October 10, 2012

By *Original signed by Elizabeth Ullrich*
Elizabeth Ullrich
Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406