

U.S. NUCLEAR REGULATORY COMMISSION

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 Tank-Automotive and 2. Armaments Command-Rock Island ATTN: AMSTA-CS-CZR Rock Island, IL 61299-7630</p>	<p>3. License number 12-00722-16</p> <p>4. Expiration date January 31, 2014</p> <p>5. Docket No. 030-36428 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Americium-241</p> <p>B. Nickel-63</p> <p>C. Nickel-63</p>	<p>7. Chemical and/or physical form</p> <p>A. Plated foils (NRD, Inc Model A 001</p> <p>B. Plated Foils (AEA Tech PLC Model Nos. NBC, NBCD or NBCQ8681</p> <p>B. Plated Foils (Dupont Merck model NER 0049 or AEA Tech QSA, Inc. Model NBCD</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not to exceed 300 microcuries per source and 25 curies total.</p> <p>B. Not to exceed 15 millicuries per source and 900 curies total.</p> <p>B. Not to exceed 15 millicuries per source and 375 curies total.</p>

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

12-00722-16

Docket or Reference Number

030-36428

9. Authorized Use:

- A. To be used in Model M43A1 Chemical Agent Detectors for detection of aerosols and gases.
- B. To be used in Model GID-3 Chemical Agent Alarms for aerosol, gas and vapor detection.
- C. To be used in Model CAM or ICAM Chemical Agent Monitors for aerosol, gas and vapor detection.

CONDITIONS

10. Licensed material may be stored at Pine Bluff Arsenal, Pine Bluff, Arkansas; Rock Island Arsenal, Rock Island, Illinois; Blue Grass Army Depot, Richmond, Kentucky; Oregon National guard, Combined Support Maintenance Shop; Camp Withycombe, Clakamas, Oregon; Joint Task Force Civil Support Command, Fort Monroe, Virginia; Chemical Biological Radiological Nuclear/Directorate (CBRN), Pentagon Force Protection Agency (PFPA), Arlington, Virginia; and used by the U.S. Army, Active and Reserve, and National Guard on Department of Defense installations and temporary job sites throughout the United States and any other location where the commission maintains jurisdiction for regulating the possession and/or use of licensed material.
11. Licensed material shall be used by or under the supervision of Thomas G. Gizicki, Timothy Mohs or U.S. Army and National Guard civilian and/or military personnel trained in accordance with application dated March 9, 2000
12. A. The Radiation Safety Officer (RSO) for this license is Thomas Gizicki.
- B. The Alternate Radiation Safety Officer (RSO) for this license is Timothy Mohs
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the interval 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. In the absence of a certificate from a transfer indicating that a leak test has been made, within in the Interval 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.
- C. 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 leak tested before use or transfer. No sealed sources shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample. If the test reveals the presence of 0.005 microcuries 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.

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- E. In the absence of a certificate from a transfer indicating that a leak test has been made, within in the Interval 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.
- F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 3 years.
14. Except for maintaining labeling as required by 10 CFR Part 20 or 71, the licensee shall obtain authorization from the U.S. Nuclear Regulatory Commission before making any changes in the sealed source, device, or source-driven combination that would alter the description or specifications as indicated in the respective Registration Certificates issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. The licensee shall conduct a physical inventory every twelve (12) months or at other interval approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
19. Maintenance operations on the Chemical Agent Detectors, Monitors or Alarms will not include or involve any repair or contact with the nickel-63 plated source or americium-241 plated sources.
20. Notwithstanding the color requirements in 10 CFR 20.1901(a), the licensee is authorized to label fielded items of equipment with colors as described in letter dated June 30, 2000.
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. Application dated March 9, 2000;
- B. Electronic mail dated June 11, 2002 and September 16, 2002, and
- C. Letters dated June 30, 2000, September 9, 2002 and January 20, 2004 (replacing in its entirety, application dated October 23, 2003).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DATE JAN 21 2004

By _____ /signed/ _____
Loren J. Hueter
Materials Licensing Branch
Region III