

MATERIALS LICENSE

Amendment No. 05

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, 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>Licensee</p> <p>1. Department of the Army Commander, Dugway Proving Ground ATTN: STEDP-SA</p> <p>2. Dugway, Utah 84022-5000</p>	<p>In accordance with letter dated December 23, 1987</p> <p>3. License number 43-01316-09 is amended in its entirety to read as follows:</p> <p>4. Expiration date January 31, 1988</p> <p>5. Docket or Reference No. 030-12715</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Hydrogen-3</p> <p>B. Iodine-125</p> <p>C. Iodine-131</p> <p>D. Carbon-14</p> <p>E. Chromium-51</p> <p>F. Krypton-85</p> <p>G. Krypton-85</p>	<p>7. Chemical and/or physical form</p> <p>A. Any except as sealed sources</p> <p>B. Any except as sealed sources</p> <p>C. Any except as sealed sources</p> <p>D. Any except as sealed sources</p> <p>E. Any except as sealed sources</p> <p>F. Sealed sources</p> <p>G. Sealed sources (Minnesota, Mining and Manufacturing Co. Model 3B4G)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 100 millicuries</p> <p>B. 10 millicuries</p> <p>C. 10 millicuries</p> <p>D. 10 millicuries</p> <p>E. 25 millicuries</p> <p>F. Not to exceed 10 millicuries per source</p> <p>G. Not to exceed 10 millicuries per source</p>

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H. Nickel-63	H. Plated sources Hewlett Packard Model 19303 detector cell	H. Not to exceed 15 millicuries per foil
I. Nickel-63	I. Foils in Varian Aerograph Model 2-0771 detector cell	I. Not to exceed 12 millicuries per foil
J. Nickel-63	J. Foils in Varian Aerograph Model 02-0770 detector cell	J. Not to exceed 8 millicuries per foil
K. Nickel-63	K. Plated sources in Hewlett Packard Model 18713A detector cells	K. Not to exceed 15 millicuries per source
L. Nickel-63	L. Foils (Tracor Model 111019)	L. Not to exceed 10 millicuries per foil
M. Nickel-63	M. Sealed sources	M. Not to exceed 15 millicuries per source

9. Authorized use:

- A. through E. For use in laboratory tracer and biological studies.
- F. For use in Thermal Research Systems, Inc. Model 3054 Aerosol deionization chamber.
- G. For use in Environmental Research Corporation Model 8320 spinning disc aerosol/generator for deionizing aerosol particles during dissemination of particles.

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9. (continued)

J. through L. For use in gas chromatographs for sample analysis.

M. For use in developmental chemical agent monitors for testing purposes.

CONDITIONS

10. Licensed material shall be used only at the Department of the Army's Dugway Proving Ground, Dugway, Utah, in Buildings 2028, 3008, 4110, 4120, the Defensive Test Chamber, and the Radiation Waste Storage COMEX.
11. Licensed material shall be used by, or under the supervision of, Kenneth M. Brauner, Martin J. Houle, A. Paul Adams, I. Gary Resnick, Jorge K. Leong, Bruce Harper, Alfred L. Lamb, or Harold K. Oliver.
12. Detector cells containing licensed material shall not be opened or the foil sources removed from the detector cell by the licensee.
13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
14. Sealed sources containing licensed material shall not be opened.
15. A. (1) The sources or foils specified in Items 7.F. through 7.M. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
B. Any source or foil in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

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15. (continued)

- C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011, ATTN: Chief, Nuclear Materials and Emergency Preparedness Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. 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.
16. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
17. Licensed material shall not be used in or on human beings.
18. 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 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 date: February 3, 1982
B. Letter dated July 27, 1982
C. Letter dated November 17, 1982
D. Letter dated December 22, 1982
E. Application dated June 5, 1985
F. Application dated July 14, 1987
G. Letter dated December 23, 1987

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JAN 21 1988

By

Nuclear Materials Licensing Section
Region IV
Arlington, Texas 76011

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