

## 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, 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.

Licensee		In accordance with letter dated June 25, 1985	
1. Environmental Protection Agency - Region VIII Environmental Service Div./Analytical Support Br., P. O. Box 25366 Denver Federal Center - Bldg. 53 Denver, Colorado 80225		3. License number 05-14892-02 is amended in its entirety to read as follows:	
		4. Expiration date August 31, 1987	
		5. Docket or Reference No. 030-08754	
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	
A. Americium-241	A. Sealed source contained in Packard Tri-Carb Liquid Scintillation Counter, Model 3380	A. 130 microcuries	
B. Cesium-137	B. Sealed sources	B. Not to exceed 90 microcuries per source	
C. Nickel-63	C. Plated sources contained in a Hewlett-Packard Model 19303 detector cells	C. Not to exceed 15 millicuries per source	
D. Nickel-63	D. Plated sources in Hewlett-Packard Model 18803A electron capture detector cells	D. Not to exceed 15 millicuries per source	

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License number  
05-14892-02

Docket or Reference number  
030-08754

Amendment No. 12

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|------------------|--------|-------------------|
| E. Americium-241 | E. Any | E. 0.1 microcurie |
| F. Strontium-90  | F. Any | F. 0.1 microcurie |
| G. Strontium-89  | G. Any | G. 0.1 microcurie |
| H. Plutonium-239 | H. Any | H. 0.1 microcurie |

9. Authorized use

- A. Storage only.
- B. For use in dosimeter calibrators.
- C. and D. For use in gas chromatographs for sample analysis.
- E. through H. For instrument calibration.

CONDITIONS

10. Licensed material shall be used only at Building 53, Denver Federal Center, Denver, Colorado, except for Item 6.B. which shall be used only at Lincoln Towers Building, 1860 Lincoln Street, Denver, Colorado.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision of, Milton W. Lammering, Jr., Robert C. Tauer, or H. Gregory Beierl.
13. Detector cells containing licensed material shall not be opened or the foil source removed from the detector cell by the licensee.
14. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, 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.

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15. A. Each chromatograph detector containing nickel-63 shall be tested for leakage and/or contamination at intervals not to exceed 6 months. In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to the transfer, a detector received from another person shall not be put into use until tested.
- B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the surfaces of the device in which the foil is mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the foil from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Dr., Suite 1000, Arlington, Texas 76011, describing the equipment involved, the test results, and the corrective action taken.
- D. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated May 20, 1982, for analysis by Gulf Nuclear, Inc. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized 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 foils or sources received and possessed under the license. The records of the inventories shall be maintained for 2 years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of foils or sources and the date of the inventory.
17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in applications dated April 28, 1977, May 20, 1982, and February 24, 1983; and letters dated June 10, 1977, October 29, 1979, September 2, 1981, January 7, 1985, and June 25, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Original Signed By  
Jack E. Whitten

Date JUL 31 1985

Official Record Copy

By

Nuclear Materials Safety Section  
Region IV  
Arlington, Texas 76011

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