

## MATERIALS LICENSE

Amendment No. 14

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 application dated December 23, 1987, 3. License number SNM-860 is amended in its entirety to read as follows:	
1. Department of the Army U.S. Army Environmental Hygiene Agency			
2. Aberdeen Proving Ground, Maryland 21010		4. Expiration date April 30, 1989	
		5. Docket or Reference No. 070-00867	
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. Plutonium	A. Sealed Pu-Be neutron sources	A. 208 grams	
B. Plutonium	B. Plated alpha sources	B. 500 micrograms	
C. Plutonium	C. Standard solutions	C. 500 micrograms	
9. Authorized use			
A., B. and C. For use in laboratory experiments and calibration of instruments. Sealed sources are to be used and stored in Monsanto Research Corp., shielded containers.			

## CONDITIONS

10. Licensed material may be used at U.S. Army Environmental Hygiene Agency, Aberdeen Proving Ground, Maryland and at temporary job sites of the licensee anywhere in the United States.
11. A. Licensed material shall be used by, or under the supervision of, individuals designated by the licensee's Ionizing Radiation Control Committee, Daniel R. Voss, Chairperson.
- B. Radiation Protection Officer for this license is Jason Dunavant.
12. A(1) Each sealed source acquired from another person and containing licensed material, other than hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for contamination and/or leakage before use. In the absence of a certificate from a transferor indicating that a test has been made within 6 months before the transfer, a sealed source received from another person 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 materials or 10 microcuries or less of alpha emitting material.

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**MATERIALS LICENSE**  
SUPPLEMENTARY SHEET

License number

SNM-860

Docket or Reference number

070-00867

Amendment No. 14

(12. continued)

**CONDITIONS**

(3) Except for alpha sources, the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage before any use or transfer to another person unless they have been leak tested within 6 months before the date of use or transfer.

- B. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfer as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.
- C. Each sealed source containing licensed material, other than hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed 6 months except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.
- D. 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 sealed source or from the surfaces of the device in which the sealed source is permanently or semipermanently 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. Records may be disposed of following Commission inspection.
- E. If the test required by Subsection A. or C. of this condition reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source 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 date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety and Safeguards Branch, 631 Park Avenue, King of Prussia, Pennsylvania 19406, describing the equipment involved, the test results, and the corrective action taken.

13. Sealed sources containing licensed material shall not be opened.

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(Continued)

CONDITIONS

14. 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 dated March 21, 1983
- B. Letter dated August 4, 1983
- C. Letter dated December 22, 1983
- D. Letter dated April 25, 1984
- E. Letter dated June 14, 1984
- F. Letter dated February 14, 1985
- G. Letter dated March 18, 1986
- H. Letter dated June 30, 1986
- I. Letter dated December 23, 1987

For the U.S. Nuclear Regulatory Commission

Original Signed By  
Jack Davis

By

Nuclear Materials Safety and  
Safeguards Branch, Region I  
King of Prussia, Pennsylvania 19406

Date

05 FEB 1988