

## 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 application dated September 25, 1984	
1. Minerals Exploration Company		3. License number 49-19005-01 is amended in its entirety to read as follows:	
2. P. O. Box 1500 Rawlins, Wyoming 82301		4. Expiration date August 31, 1990	
		5. Docket or Reference No. 030-15192	
6. Byproduct, source, and/or special nuclear material		7. Chemical and/or physical form	
A. Cesium-137		A. Sealed sources	
B. Cadmium-109		B. Sealed sources (Texas Nuclear Dwg. 696-696782)	
C. Americium-241		C. Sealed sources (Amersham/Searle Model AMN.4)	
D. Polonium-210		D. Liquid	
8510240144 850821 REG4 LIC30 49-19005-01 PDR		8. Maximum amount that licensee may possess at any one time under this license	
		A. See Item 9.A.	
		B. Not to exceed 3 millicuries per source	
		C. Not to exceed 0.5 microcurie per source	
		D. Not to exceed 5 microcuries total	
9. Authorized use:			
A. For possession and use in Texas Nuclear devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the Nuclear Regulatory Commission or an Agreement State.			
B. and C. For use in Texas Nuclear Model 9200 Series X-ray fluorescence analyzers for sample analysis and internal standardization.			
D. For use as a liquid laboratory reference standard.			

**MATERIALS LICENSE**  
SUPPLEMENTARY SHEET

License number  
49-19005-01

Docket or Reference number  
030-15192

Amendment No. 04

**CONDITIONS**

10. Licensed material shall be used only at Mineral Exploration Corporation's Sweetwater Uranium Project (T24N, R93W), Sweetwater County, Wyoming.
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, Jack A. Marshall or Thomas J. Klein.
13. A. (1) 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 the sealed sources in the Texas Nuclear nonportable gauges may be leak tested at intervals not to exceed 3 years. In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to 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 material or 10 microcuries or less of alpha emitting material.  
(3) 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 prior to any use or transfer to another person unless they have been leak tested within 6 months prior to the date of use or transfer.
- 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 sealed source or from the surfaces of the device in which the sealed source is permanently 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.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License number  
49-19005-01

Docket or Reference number  
030-15192

Amendment No. 04

13. (continued)

- C. If the test 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 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 September 25, 1984, for analysis by Texas Nuclear Corporation. 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.
14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
15. Installation, relocation, removal from service, maintenance, repair, and initial radiation survey of devices containing licensed material and installation, replacement, and disposal of sealed sources containing licensed material used in devices shall be performed by Texas Nuclear Corporation, the licensee's personnel who have completed the Texas Nuclear training course, or 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 sealed 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 sealed sources and the date of the inventory.
17. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."



**MATERIALS LICENSE**  
SUPPLEMENTARY SHEET

License number  
49-19005-01

Docket or Reference number  
030-15192

Amendment No. 04

18. 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 application dated September 25, 1984, and letter dated June 20, 1983. 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

**AUG 21 1985**

By

Nuclear Materials Safety Section  
Region IV  
Arlington, Texas 76011

Official Record Copy

11 m44