

MATERIALS LICENSE

Amendment No. 10

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 April 25, 1985	
1. Hibbing Taconite Company		3. License number SNM-1558 is amended in its entirety to read as follows:	
2. P.O. Box 589 Hibbing, MN 55746		4. Expiration date	September 30, 1990
		5. Docket or Reference No.	070-02003
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-238	A. Sealed sources (Monsanto Research Corp. Dwg. HMC-A-1049)	A. One source of 0.5 gram	
B. Plutonium-238/Cesium-137	B. Combined sealed sources (Ohmart Corp. Model B-18248)	B. Two sources each containing 2 sources of cesium-137 not to exceed 15 millicuries and 1 source of plutonium-238 not to exceed 13 curies	
C. Plutonium-238	C. Encapsulated as Pu-Be source (Monsanto Research Corporation)	C. One source not to exceed 3 grams	
D. Cesium-137	D. Sealed source (Texas Nuclear Corp. Dwg. No. 570-57157C)	D. One source not to exceed 500 millicuries	
E. Americium-241	E. Sealed source (Texas Nuclear Corp. AMK-312)	E. One source not to exceed 50 nanocuries	

9. Authorized Use

- A. To be used in a Custom Texas Nuclear NALA Analyzer (Dwg. HMC-D-1047) for sample analysis.
- B. To be used in Ohmart Model NMC-1 gauges to measure moisture in iron ore filter cake.

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9. Authorized Use (cont'd)

- C. To be used in Texas Nuclear Corp. NOLA I System received from Reserve Mining Company, NRC License No. SNM-1562 for sample analysis.
- D. To be used in a Texas Nuclear Corp. Model 5176 source holder in a NOLA I System received from Reserve Mining Company, NRC License No. SNM-1562 for sample analysis.
- E. To be used in Texas Nuclear Corp. NOLA I System received from Reserve Mining Company, NRC License No. SNM-1562 for internal calibration.

CONDITIONS

10. A. Licensed material is Subitems 6.A. and 6.C. through 6.E. shall be used only at Hibbing Taconite Company, Concentrator Analytical Laboratory, Hibbing, Minnesota.
- B. Licensed material listed in Subitems 6.B. shall be used only at Hibbing Taconite Company, Agglomerating Plant, Hibbing, Minnesota.
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, Robert C. Ives, John C. Koivisto, William G. Janicki, Jr., or David W. Hendrickson. Licensed material in Subitem 6.B. may also be used by, or under the supervision of, Richard A. Bauer.
13. A. Each encapsulated plutonium source designed for the purpose of emitting neutron or gamma radiation shall be tested for leakage at intervals not to exceed six (6) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, a sealed source 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 alpha contamination on the test sample. The test sample shall be taken from the source or from appropriate accessible surfaces of the device in which the sealed source is permanently or semipermanently mounted or stored. 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 alpha contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired by a person appropriately licensed to make such repairs or to be disposed of in accordance with the Commission regulations. Within five (5) days after determining that any source has leaked, the licensee shall file a report with the Material Licensing Section, U. S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, describing the source, the test results, the extent of contamination, the apparent or suspected cause of source failure, and the corrective action taken.

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- D. 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 six (6) months prior to the date of use or transfer.
- E. Tests for leaking and/or contamination of sources listed in Subitems 6.C. through 6.E. shall be performed by individuals specified in Condition 12. in accordance with procedures specified in letter dated December 27, 1984.
14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
15. Except for plutonium contained in a medical device designed for individual human application, no plutonium, regardless of form, shall be delivered to a carrier for shipment by air transport or transported in an aircraft by the licensee except in packages the design of which the NRC has specifically approved for transport of plutonium by air.
16. Installation, relocation, removal from service, maintenance, repair, and initial radiation survey of devices containing licensed material listed in Subitems 6.C. through 6.E. and installation, replacement, and disposal of sealed sources containing licensed material used in devices shall be performed only by Texas Nuclear Corporation or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
17. Irradiate cell check and removal procedures for the Texas Nuclear NOLA I system listed in Subitem 9.C. through 9.E. shall be performed by individuals specified in Condition 12. in accordance with procedures specified in letter dated December 27, 1984. In performing these procedures, the licensee shall:
- a. Have each individual performing receive detailed safety instructions from the device manufacturer's representative authorized to conduct training.
  - b. Perform a radiation survey with properly calibrated survey meter of the irradiate cell area and activation products during the procedures.
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 letters dated April 3, 1980, October 11, 1982, December 27, 1984 and April 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 George M. McCann

Materials Licensing Section, Region III  
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Date September 9, 1985