

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 6

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, 36, 39, 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. *BC 0311* *573508*

<p style="text-align: center;">Licensee</p> <p>1. Michigan Department of Natural Resources and Environment</p> <p>2. 635 Filley Street Lansing, MI 48906</p>	<p>In accordance with the application dated September 7, 2010</p> <p>3. License number 21-24958-01 is amended in its entirety as follows:</p> <p>4. Expiration date July 31, 2013</p> <p>5. Docket No. 030-29976 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Americium-241</p> <p>B. Cesium-137</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed source (Gulf Nuclear, Inc. (NEEI) Model 71-1)</p> <p>B. Sealed source (New England Nuclear Model NER 572)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. One source not to exceed 1,200 millicuries</p> <p>B. One source not to exceed 6 millicuries</p>
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9. Authorized Use:
- A. and B. To be use for logging cased groundwater monitor wells used in groundwater contamination studies.

CONDITIONS

10. Licensed material may be stored at the Rose Lake Warehouses and Repair Shop, 9870 W. Stoll Road, Haslett, Michigan, and may be used at temporary job sites of the licensee throughout the State of Michigan.
11. The Radiation Safety Officer for this license is Thomas Mann.
12. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in application dated February 11, 2003, and have been approved in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for five years following the last use of licensed material by the individual.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
21-24958-01Docket or Reference Number
030-29976

Amendment No. 6

13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- G. The licensee is authorized to collect leak test samples for analysis by Michigan Department of Transportation, Materials and Technology Division, NRC License No. 21-03039-01. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
21-24958-01Docket or Reference Number
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Amendment No. 6

15. Each source holder or logging tool containing radioactive material shall bear a legible and visible marking as specified in 10 CFR 39.31(a). The label must be on the smallest component that contains the licensed material which is transported as a separate piece of equipment
16.
 - A. Notwithstanding the periodic leak test required by 10 CFR 39.35, the requirement does not apply to sources, except sources containing plutonium, that are stored and not being used. The sources exempted from this periodic test shall be tested for leakage before use or transfer to another person. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
 - B. Sealed sources authorized for a use other than well logging shall be tested for leakage and shall be inventoried in accordance with 10 CFR 39.35 and 39.37.
17. The licensee shall not vacate or release to unrestricted use a field office or storage location whose address is identified in Condition 10, without prior U.S. Nuclear Regulatory Commission approval. Reports of residual levels of contamination or other information concerning facility status may be required.
18. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
19. The repair, opening or modification of any sealed source, or the non-routine servicing or maintenance of equipment such as the removal of source capsules from source holders/pressure housing, etc., shall be performed only by persons specifically authorized to do so by the U.S. Nuclear Regulatory Commission or an Agreement State.
20. The licensee shall maintain records of information related to decommissioning at the location listed in Item 2 of this license as specified in 10 CFR 30.35(g) until this license is terminated by the Commission.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
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Amendment No. 6

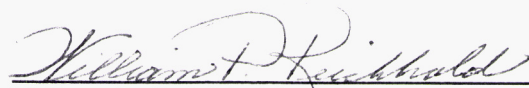
21. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated February 11, 2003.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date OCT 15 2010

By



William P. Reichhold
Materials Licensing Branch
Region III