NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 27

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.

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Licensee	In accordance with application dated February 22, 2007
1. State of Michigan Department of Environmental Quality 2. Waste and Hazardous Materials Division Radiological Protection Section 525 West Allegan Street, P.O. Box 30241 Lansing, MI 48909-7741	3. License number 21-05199-02 is renewed in its entirety to read as follows: 4. Expiration date July 31, 2017 5. Docket No. 030-07188 Reference No.

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. Cobalt-60	A. Sealed Source Sets (Reed-Curtis, Tracer Lab, Baird-Atomic, or 3M Models CDV-7[redacted]CDV-786)	A. Not to exceed 30 millicuries per source set, 120 millicuries total
B. Cobalt-60	B. Source Rod (Technical Operations Model 571)	B. One source not to exceed 15 millicuries
C. Cesium-137	C. Sealed Source (New England Nuclear Model NER-570)	C. One source not to exceed 100 millicuries
D. Cesium-137	D. Sealed Source (Amersham Corp. Model CES.192; 3M Models 4P6E, 4F6H, 4D6L or 4F6S; U.S. Nuclear Model 375; Isotope Products Lab Model 193; Ind. Reactor Labs, Ind. Models 2-4 or 2-10; or J.L. Shepherd and Assoc. Model 6810)	D. One source not to exceed 1 curie
E. Cesium-137/Americium-241	E. Combined Sealed Source (New England Nuclear Model NER-560A)	E. One source not to exceed 10 millicuries of Cesium-137 and 50 millicuries of Americium-241

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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
F. Any byproduct material	F. Environmental samples, incident response samples, and calibration standards	F. Not to exceed 10 millicuries total
G. Any byproduct material	G. Any	G. 100 millicuries total

9. Authorized Use:

A. For use in training and instrument calibration.

B. For use in Technical Operations Model 571 Meter Calibrator for calibration of instruments.

C. To be used as a standard for instrument calibration in EON Model 64-764 instrument calibrator.

D. For use in J. L. Shepherd Model 28-6a calibrator for calibration of survey instruments.

E. To be used in a Nuclear Instruments Corp. Model NIC-5 for instrument calibration.

F. To be used for the collection, transportation, and analysis of environmental samples, incident response samples, and calibration standards.

G. For collection and possession incident to disposal as described in facsimile dated July 12, 2007.

CONDITIONS

10. Licensed material shall be used at the licensee's facilities located at 815 Terminal Drive, Lansing, Michigan. Licensed material listed in Subitems 6.F. and 6.G. may be used at temporary jobsites throughout the state of Michigan.

11. Licensed material shall be used by, or under the supervision of David W. Minnaar, Robert L. DeHaan, Michael J. McCarty, and Robert D. Skowronek.

12. The Radiation Safety Officer for the activities authorized by this license is Robert D. Skowronek.

13. A. Each sealed source containing licensed material to be used outside of a shielded exposure device shall have a durable, legible, and visible tag permanently attached by a durable ring. The tag shall be at least 1 inch square, shall bear a conventional radiation symbol prescribed in 10 CFR 20.1901 (a) and a minimum of the following instructions: DANGER - RADIOACTIVE MATERIAL - DO NOT HANDLE - NOTIFY CIVIL AUTHORITIES IF FOUND.

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B. Replacement of tags and rings shall be carried out by the licensee in accordance with instructions contained in procedures provided by the Federal Emergency Management Agency.

14. A. Licensed material contained in the Reed Curtis, Tracer Lab, Baird-Atomic, or 3M Sealed Source Sets shall be tested for external leakage and/or contamination upon receipt from another person, except when the licensee received certification from the person that the sources had been tested within 6 months before transfer and found free of surface contamination. Thereafter, sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Records of leak tests shall be maintained by the licensee. Records may be disposed of following Commission inspection.

B. 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.

C. Leak tests of sealed sources in the Reed Curtis, Tracer Lab, Baird-Atomic, or 3M Sealed Source Sets shall be performed by the licensee in accordance with instructions contained in procedures provided by the Federal Emergency Management Agency.

15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.

16. A. Sealed sources 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 issued by he U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State.

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 the intervals specified in the certificate of registration issued by he U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State, prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested and the test results received.

D. Sealed sources or detector cells need not be leak tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material.

E. Sealed sources or detector cells need not be tested if they 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.

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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. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to Perform such services.

H. Records of leak tests shall be kept in units of micorcuries and shall be maintained for 3 years.

17. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory.

18. The licensee is authorized to hold radioactive material with a physical half-life of less than 120 days for decay-in-storage before disposal in ordinary trash provided:

A. Before disposal as ordinary trash, byprod[redacted]al shall be surveyed at the container surface with the appropriate survey meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

B. A record of each disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

19. 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."

20. Licensed material shall not be used in or on human beings.

21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

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22. 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 22, 2007; and

B. Facsimiles dated July 12, 2007, and July 19, 2007.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date AUG 0 2 2007

By Robert G. Gattone Jr.
Robert G. Gattone, Jr.
Materials Licensing Branch
Region III