U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 68

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.

Licensee	In accordance with letter dated **December 6, 2013,**
1. MRI Global (formerly Midwest Research Institute)	3. License number 24-02564-02 is amended in its entirety to read as follows:
2. 425 Volker Blvd. Kansas City, MO 64110-2241	4. Expiration date February 28, 2021
	5. Docket No. 030-05083 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. Hydrogen-3	A. Any	A. **30 millicuries**
B. Carbon-14	B. Any	B. **700 millicuries**
C. Nickel-63	C. Foil/Plated Sources (which have been registered with the NRC pursuant to Section 32.210 of 10 CFR Part 32 or equivalent Agreement State Regulations)	C. 2 sources not to exceed 15 millicuries each

9. Authorized use:

A. and B. To be used for research and development as defined in Section 30.4 of 10 CFR Part 30, including animal studies and for instrument calibration.

C. To be used as ionization sources in gas chromatographs for sample analysis.

CONDITIONS

10. Licensed material shall be used at the licensee's facilities located 425 Volker Blvd., Kansas City, Missouri.

11. A. Radiation Safety Officer: Eric R. Jeppesen.

B. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individual(s) for the materials and uses indicated.

Michael Fischer	Nickel-63 foil or plated sources.
Scott Klamm	Nickel-63 foil or plated sources.
Frank Pendleton	Nickel-63 foil or plated sources.

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Kelly L. Brown, Ph.D.	Carbon-14 and hydrogen-3.
Shirley J. Ireland	Nickel-63 foil or plated sources.
Linda G. Seimann	Nickel-63 foil or plated sources.
Mingcheng Han, Ph.D.	Carbon-14 and hydrogen-3.
Joseph Algaier, Ph.D.	Carbon-14 and hydrogen-3.
Peter Deardorff	Carbon-14 and hydrogen-3.
Bruce N. Diel, Ph.D.	Carbon-14 and hydrogen-3.

12. Except as otherwise specified in this license, the licensee shall have available and follow the instructions contained in the manufacturer's instruction manual for the chromatography device.

13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such intervals as specified by the certificate of registration referred to in 10 CFR 32.210.

B. In the absence of a certificate from a transferor indicating that a leak test has been made within the interval specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested.

C. Sealed sources 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

D. 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.

E. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 3 years.

14. Detector cells containing licensed material shall not be opened or the sources removed from the detector cell by the licensee.

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15. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.

16. Experimental animals administered licensed materials or their products shall not be used for human consumption.

17. The licensee shall maintain a funding plan or certificate of financial assurance for decommissioning per the provisions of 10 CFR Part 30.35 and this license.

18. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the manufacturer or other persons specifically licensed by the Commission or an Agreement State to perform such services.

19. The licensee shall conduct a physical inventory of all sealed and/or foil sources at intervals not to exceed 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, 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 and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.

20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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 September 28, 2010;

    B. Letters dated March 19, 2012, May 14, 2013, **December 6, 2013**, and **January 5, 2014 (via facsimile dated February 5, 2014)**; and

    C. Letter received July 19, 2013.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date FEB 2 5 2014

By _____
Cassandra F. Frazier
Materials Licensing Branch
Region III