

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.

0603620
Licensee

573230
In accordance with letter dated
July 22, 2010,

3. License number 34-07167-03 is amended in its entirety to read as follows:

4. Expiration date July 31, 2015

5. Docket No. 030-20621
Reference No.

1. Department of Health and Human Services
National Institute for Occupational Safety and Health
2. Robert A. Taft Laboratories, PHS
Mail Stop C-2
4676 Columbia Parkway
Cincinnati, OH 45226

- | | | |
|---|--|---|
| 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. 50 millicuries |
| B. Carbon-14 | B. Any | B. 90 millicuries |
| C. Iodine-125 | C. Any | C. 2 millicuries |
| D. Phosphorus-32 | D. Any | D. 100 millicuries |
| E. Chromium-51 | E. Any | E. 50 millicuries |
| F. Nickel-63 | F. Foils or plated sources
(Hewlett Packard
Models G1223A,
G1533A; Agilent
Tech. Model 2397A) | F. Not to exceed 15
millicuries per foil or
source. Total activity 150
millicuries |

9. **Authorized use:**

A., B., **D.**, and E. For storage only incident to disposal.

C. For research and development as defined in 10 CFR 30.4.

F. For use in gas chromatographs for sample analysis.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

34-07167-03

Docket or Reference Number

030-20621

Amendment No. 14

CONDITIONS

10. Licensed material shall be used and/or stored only at the licensee's facilities located at 4676 Columbia Parkway, Cincinnati, Ohio, and 5555 Ridge Avenue, Cincinnati, Ohio.

11. **The Radiation Safety Officer for this license is Beth Rolfes, M.S.**

12. Licensed material shall be used the following individuals:

Authorized UsersMaterial and Use

Kenneth Brown

Nickel-63

Stephanie Pendergrass

Nickel-63

Juliana Meadows

Iodine-125

James Kesner

Iodine-125

13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily 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 the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- D. Sealed sources need not be 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 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.
- 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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

34-07167-03

Docket or Reference Number

030-20621

Amendment No. 14

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

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

14. 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."
15. 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, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of the sources and/or devices, and the date of the inventory.
16. Licensed material shall not be used in or on human beings.
17. This license does not authorize commercial distribution of licensed material.
18. The licensee shall not use licensed material in field applications where activity is released except as provided by specific condition of this license.
19. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
20. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in 10 CFR 20.203(a)(1), the licensee is hereby authorized to label detector cells, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols.
21. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.
22. 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.
23. 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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
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Amendment No. 14

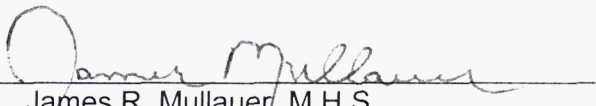
24. The licensee is authorized to hold radioactive material with a physical half-life of less than 120 days for decay-in-storage before disposal in ordinary trash provided.
- A. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate survey 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.
25. 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 March 15, 2005 (excluding letter dated March 16, 2005); and
- B. Facsimiles dated May 19, 2005, two facsimiles dated July 6, 2005, August 25, 2006, October 2, 2006, October 18, 2006, and
- C. Letters dated August 2, 2006, February 6, 2009 and **July 22, 2010**.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

AUG 06 2010

Date _____

By _____


James R. Mullauer, M.H.S.
Materials Licensing Branch
Region III