

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Amendment No. 12

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 the application dated
September 20, 2010,

1. Consumers Energy Company
Laboratory Services
2. 135 W. Trail Street
Jackson, MI 49201

3. License number 21-18784-01 is **renewed** in its entirety as follows:

4. Expiration date **February 28, 2021**

5. Docket No. 030-14167
Reference No.

6. Byproduct, source, and/or special nuclear material

A. Nickel-63

7. Chemical and/or physical form

A. Foils or plated sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gas chromatograph as specified in Item 9 of this license

8. Maximum amount that licensee may possess at any one time under this license

A. No single source to exceed 15 millicuries.
Total activity 105 millicuries.

9. Authorized use

- A. To be used for sample analysis in Hewlett-Packard Model 5890 or Agilent Models 6890 or 7890 gas chromatography devices for sample analysis.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at Laboratory Services 135 W. Trail Street, Jackson, Michigan.
11. A. Licensed material shall be used by, or under the supervision of Gordon L. Cattell, Amber C. Muscott, or Quanfang Ye.
B. The Radiation Safety Officer for this license is John S. Merrill.
12. Detector cells containing licensed material shall not be opened or the foil sources removed from the detector cell by the licensee.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
21-18784-01Docket or Reference Number
030-14167

Amendment No. 12

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. 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.
- C. Sealed sources need not be leak tested if:
- (i) 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
 - (ii) 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.
- 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, limited to leak test sample collection shall be performed by the licensee or persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis. Analysis of leak test samples must be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. 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.
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.

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16. 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 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 20, 2010.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JAN 21 2011

By



William P. Reichhold
Materials Licensing Branch
Region III