

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 02

**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.

*DL 02270*

~~318/82~~ *3/8/09*

Licensee

In accordance with application dated April 3, 2009.

1. David Close Consulting

3. License number 34-26653-02 is amended in its entirety to read as follows:

2. 1412 Willowood Court  
Painesville, OH 44077

4. Expiration date August 31, 2019

5. Docket No. 030-35055  
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. Any byproduct material with Atomic Nos. 3-83, inclusive and Atomic No. 95

A. Leak test samples

A. See Item 9.A. below

B. Cesium-137

B. Sealed sources (New England Nuclear Model Nos. NES-356, NES-360, or NES-367)

B. No single source to exceed 250 microcuries. Total possession limit not to exceed 1.0 millicurie.

C. Barium-133

C. Sealed sources (New England Model Nos. NES-358 or NES-367)

C. No single source to exceed 300 microcuries. Total possession limit not to exceed 1.0 millicurie.

D. Technetium-99m

D. Any

D. 500 millicuries

E. Cobalt-57

E. Sealed source (IPL Model RV-057-5M)

E. No single source to exceed 5 millicuries. Total possession limit not to exceed 20 millicuries.

9. Authorized use:

A. Possession incident to the performance of tests for leakage and/or contamination on sealed sources and devices containing licensed material.

B. C. and E. To be used for instrument calibration and testing.

D. To be used for instrument calibration and testing for shielding evaluations.

CONDITIONS

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10. Licensed material may be used at temporary job sites of the licensee anywhere in the United States where NRC maintains Jurisdiction.
11. Licensed material shall be used by, or under the supervision of, David Close, Sharon L. Long, Michael W. Lairmore, C. Kelly Stoneberg and Jim Fisher.
12. The Radiation Safety Officer for this license is David Close.
13.
  - 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 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.

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- 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.
14. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
15. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. 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."
17. 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. Letter dated July 23, 2009.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date AUG 10 2009By James R. Mullauer  
James R. Mullauer, M.H.S.  
Materials Licensing Branch  
Region III