

U.S. NUCLEAR REGULATORY COMMISSION

**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.

*DC 03/21*  
Licensee

*316983*

In accordance with the letter dated **March 10, 2008**, (except Radiation Safety Program changes),

3. License number 24-20089-01 is amended in its entirety to read as follows:

4. Expiration date **May 31, 2012**

5. Docket No. **030-17948**  
Reference No.

1. Engineering Surveys and Services, LLC

2. 1113 Fay Street  
Columbia, MO 65401

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. Cesium-137

A. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license.

A. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State.  
**Total activity not to exceed 80 millicuries**

B. Americium-241

B. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license.

B. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State.  
**Total activity not to exceed 400 millicuries**

9. Authorized Use:

A. and B. To be used in Troxler Model 3400 Series surface moisture/density gauges for measuring physical properties of materials.

**A. and B. To be used in Instro Tek, Inc., Model 3500 portable moisture/density gauge for measuring physical properties of materials.**

CONDITIONS

10. Licensed material may be stored at 802 El Dorado Dr., Jefferson City, Missouri, or 1113 Fay Street, Columbia, Missouri, 1775 West Main St., Sedalia, Missouri and may be used at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.

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Amendment No. 9

11. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in application dated February 28, 2002.
12.
  - A. The Radiation Safety Officer for the activities authorized by this license is Bruce A. Dawson.
  - B. Before assuming the duties and responsibilities as RSO for this license, future RSOs shall have successfully completed one of the training courses described in Criteria in Section 8.8 of NUREG-1556, Volume 1, dated May 1997.
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 NRC under 10 CFR 32.210 or by an Agreement State.
  - B. 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 NRC 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.
  - C. 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.
  - D. The licensee is authorized to collect leak test samples for analysis by Troxler or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened or removed from the gauges by the licensee.
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 2 years from the date of each inventory.
16. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
17. Except for maintaining labeling as required by 10 CFR Part 20 or 71, the licensee shall obtain authorization from NRC before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.

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18. 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.
19. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport. A minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauge is not under the control and constant surveillance of the licensee are required.
20. Any cleaning, maintenance, or repair of the gauges that requires detaching the source or source rod from the gauge shall be performed only by the manufacturer or other persons specifically licensed by the Commission or an Agreement State to perform such services.
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 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 28, 2002.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

**MAR 31 2008**

Date \_\_\_\_\_

By



William P. Reichhold  
Materials Licensing Branch  
Region III