

**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, 37, 39, 40, 70 and 71, 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  1. Smith and Company  2. 901 Vine Street Poplar Bluff, MO 63902		In accordance with letter dated February 10, 2017.  3. License number: 24-18711-03 is amended in its entirety to read as follows:	4. Expiration Date: December 31, 2022  5. Docket No.: 030-32734 Reference No.:
6. Byproduct, source, and/or special nuclear material  A. Cesium-137  B. Americium-241  C. Cesium-137  D. Americium-241	7. Chemical and/or physical form  A. Sealed Sources (AEA Technology/QSA, Inc., Model CDCW556; Isotope Products Laboratories, Model HEG-137)  B. Sealed Sources (AEA Technology/QSA, Inc., Model AMNV.997; Isotope Products Laboratories, Model AM1.NO2)  C. Sealed Sources (AEA Technology/QSA, Inc., Model CDC.805; Isotope Product Laboratories, Model HEG-137)  D. Sealed Sources (AEA Technology/QSA, Inc., Model AMN.V997; Isotope Product Laboratories, Model Am1.NO2)	8. Maximum amount that licensee may possess at any one time under this license  A. 9 millicuries per source and 27 millicuries total  B. 44 millicuries per source and 132 millicuries total  C. 11 millicuries per source and 33 millicuries total  D. 44 millicuries per source and 132 millicuries total	9. Authorized use  A. For use in Troxler Electronic Laboratories Model 3400 Series portable gauging devices for measuring physical properties of materials.  B. For use in Troxler Electronic Laboratories Model portable gauging devices for measuring physical properties of materials.  C. For use in Humboldt Scientific, Inc. Model 5001 portable gauging devices for measuring physical properties of materials.  D. For use in Humboldt Scientific Model 5001 portable gauging devices for measuring physical properties of materials.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

 License Number  
24-18711-03

 Docket or Reference Number  
030-32734

Amendment No. 6

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| 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 | 9. Authorized use   |
| E. Cesium-137   | E. Sealed Sources (CPN, Model CPN-131)   | E. 10 millicuries per source and 10 millicuries total                          | E. For use in CPN International Division of InstronTek, Inc. MC Series PORTAPROBE portable gauging devices for measuring physical properties of materials.  |
| F. Americium-241                                      | F. Sealed Sources (CPN, Model CPN-131)   | F. 50 millicuries per source and 50 millicuries total                          | F. For use in CPN International Division of InstronTek, Inc. MC Series PORTABPROBE portable gauging devices for measuring physical properties of materials. |
| G. Cesium-137   | G. Sealed Sources (AEA Technology QSA, Inc., Model CDC.805; Isotope Products Laboratories, Model HEG-137)        | G. 11 millicuries per source and 11 millicuries total                          | G. For use in InstronTek, Inc. Model 3500 portable gauging devices for measuring physical properties of materials.  |
| H. Americium-241                                      | H. Sealed Sources (AEA Technology QSA, Inc., Model AMN.V997; Isotope Products Laboratories, Model AM1.NO2)       | H. 44 millicuries per source and 44 millicuries total                          | H. For use in InstronTek, Inc. Model 3500 portable gauging devices for measuring physical properties of materials.  |
| I. Americium-241                                      | I. Sealed Sources (Amersham Corporation, Model AMNV.340)   | I. 110 millicuries per source and 110 millicuries total                        | I. For use in Troxler Electronic Laboratories, Inc. Model 3241-C portable gauging devices for measuring physical properties of materials.                   |
| J. Americium-241                                      | J. Sealed Sources (AEA Technology/QSA, Inc., Model AMN.V.997; Isotope Product Laboratories, Model Am1.NO2, 3027) | J. 44 millicuries per source and 44 millicuries total                          | J. For use in Troxler Electronic Laboratories, Inc. Model 3241-D portable gauging devices for measuring physical properties of materials.                   |

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
24-18711-03Docket or Reference Number  
030-32734

Amendment No. 6

**CONDITIONS**

10. Licensed material may be used or stored at the licensee's facilities located at 901 Vine Street, Poplar Bluff, 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.
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 May 30, 2012.
12. The Radiation Safety Officer (RSO) for this license is Earl P. Chase.
13. A. Sealed sources and detector cells 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 by an Agreement State. In the absence of a registration certificate, sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months, or at such other intervals as specified.
- 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 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 and the test results received.
- 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 185 becquerels (0.005 microcuries) of radioactive material on the test sample. If the test reveals the presence of 185 becquerels (0.005 microcuries) 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

24-18711-03

Docket or Reference Number

030-32734

Amendment No. 6

- E. Analysis of leak test samples and/or contamination shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is authorized to collect leak test samples but not perform the analysis.
- F. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
14. Sealed sources or source rods containing licensed material shall not be opened or sources removed or detached from source rods or gauges by the licensee, except as specifically authorized.
15. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 3 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.
16. 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.
17. 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.
18. 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 U.S. Nuclear Regulatory Commission or an Agreement State to perform such services, except as specifically provided otherwise in this license.

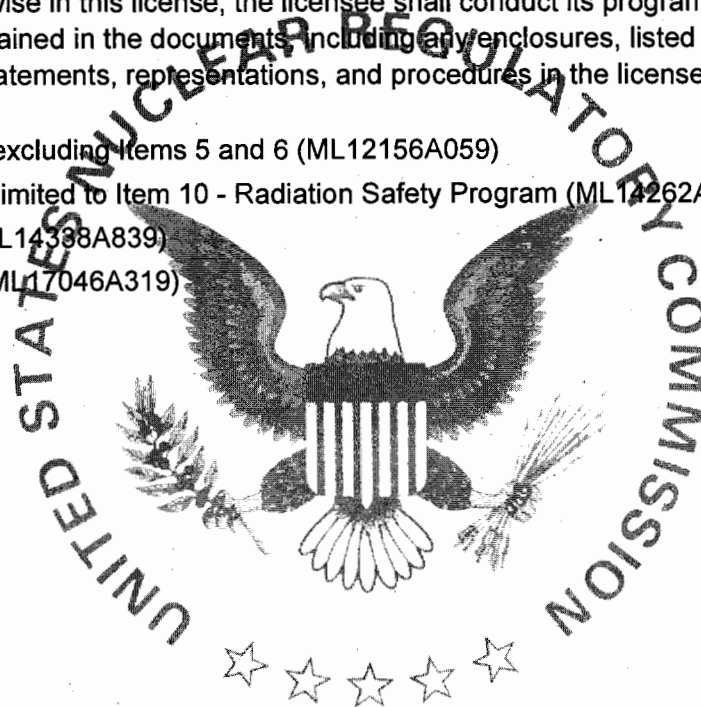
**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
24-18711-03

Amendment No. 6

Docket or Reference Number  
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19. 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 May 30, 2012, excluding Items 5 and 6 (ML12156A059)
- B. Letter dated September 3, 2014, limited to Item 10 - Radiation Safety Program (ML14262A441)
- C. Letter dated October 17, 2014 (ML14388A839)
- D. Letter dated February 10, 2017 (ML17046A319)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: MAY 08 2017By: Colleen Carol CaseyColleen Carol Casey  
Region 3