

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, 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. Troxler Electronic Laboratories, Inc. 2. P.O. Box 12057 Research Triangle Park, NC 27709		3. License number: 32-35585-01	4. Expiration Date: March 31, 2035 5. Docket No.: 030-39217 Reference No.:
6. Byproduct, source, and/or special nuclear material A. Cesium-137 B. Cesium-137 C. Cesium-137	7. Chemical and/or physical form A. Sealed Sources (AEA Technology/QSA, Inc., Model CDCW556; Isotope Product Laboratories, Model HEG-137) B. Sealed Sources (Eckert & Ziegler d/b/a Isotope Products Laboratories, Model HEG-137, PHI-137) C. Sealed Sources (Eckert & Ziegler d/b/a Isotope Product Laboratories, Model PHI-137)	8. Maximum amount that licensee may possess at any one time under this license A. Not Applicable (See Condition 10) B. Not applicable (See Condition 10) C. Not applicable (See Condition 10)	9. Authorized use A. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 3400 Series, 3401, 3411 and 4640 portable gauges. B. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 3630 Series Moisture Measurement Systems. C. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 4590 portable gauges.

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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 |
| D. Cesium-137 | D. Sealed Sources (CPN International Division of InstroTek, Inc., Model CPN-131) | D. Not applicable (See Condition 10) | D. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of CPN International Division of InstroTek, Inc., Model MC Series PORTAPROBE® portable gauges. |
| E. Cesium-137 | E. Sealed Sources (AEA Technology/QSA, Inc., Model CDC.805; Isotope Product Laboratories, Model HEG-137) | E. Not applicable (See Condition 10) | E. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Humboldt Scientific, Inc., Model 5001 portable gauges. |
| F. Cesium-137 | F. Sealed Sources (AEA Technology QSA Inc., Model CDC.805; Isotope Products Laboratories, Model HEG-137) | F. Not applicable (See Condition 10) | F. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of InstroTek, Inc., Model 3500 portable gauges. |
| G. Cesium-137 | G. Sealed Sources as specified in the certificates of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State | G. 9 millicuries per source and 90 millicuries total | G. For possession and use during demonstrations, sales, transfer and instruction/training of individuals in the use of Troxler Electronic Laboratories, Inc., Portable Gauges. |
| H. Americium-241/Beryllium | H. Sealed Neutron Source (AEA Technology/QSA, Inc., Model AMN.V997; Isotope Product Laboratories, Model AM1.NO2, 3021 or 3027) | H. Not Applicable (See Condition 10) | H. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 3400 Series, 3401 and 3411 portable gauges. |

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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 |
| I. Americium-241/Beryllium | I. Sealed Neutron Source (AEA Technologies/QSA, Inc., Model AMNV.997; Amersham Corporation, Model AMNV.340, AMNV.339; Isotope Product Laboratories, Model Am1.NO2, 3027) | I. Not applicable (See Condition 10) | I. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 3241-C, D & G portable gauges. |
| J. Americium-241/Beryllium | J. Sealed Neutron Source (CPN International Division of InstroTek, Inc., Model CPN-131) | J. Not applicable (See Condition 10) | J. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of CPN International Division of InstroTek, Inc., Model MC Series PORTAPROBE® portable gauges. |
| K. Americium-241/Beryllium | K. Sealed Neutron Source (AEA Technology/QSA, Inc., Model AMN.V997; Isotope Product Laboratories, Model Am1.NO2) | K. Not applicable (See Condition 10) | K. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Humboldt Scientific, Inc., Model 5001 portable gauges. |
| L. Americium-241/Beryllium | L. Sealed Neutron Source (AEA Technology QSA, Inc., Model AMN.V997; Isotope Products Laboratories, Model AM1.NO2) | L. Not applicable (See Condition 10) | L. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of InstroTek, Inc., Model 3500 portable gauges. |
| M. Americium-241/Beryllium | M. Sealed Neutron Source as specified in the certificates of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State | M. 44 millicuries per source and 440 millicuries total | M. For possession and use during demonstrations, sales, transfer and instruction/training of individuals in the use of Troxler Electronic Laboratories, Inc., Portable Gauges. |

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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 |
| N. Californium-252 | N. Sealed Neutron Source (AEA Technologies, Model CVN.1; Isotope Product Laboratories, Model HEG-252) | N. Not Applicable (See Condition 10) | N. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 3400 Series, 3401 and 3411 portable gauges. |
| O. Californium-252 | O. Sealed Neutron Source (Eckert & Ziegler d/b/a Isotope Product Laboratories, Model HEG-252) | O. Not applicable (See Condition 10) | O. For possession and use incident to servicing, repairing, calibration and sealed source removal/installation of Troxler Electronic Laboratories, Inc., Model 3630 Series Moisture Measurement Systems. |
| P. Californium-252 | P. Sealed Neutron Source as specified in the certificates of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State | P. 66 microcuries per source and 660 microcuries total | P. For possession and use during demonstrations, sales, transfer and instruction/training of individuals in the use of Troxler Electronic Laboratories, Inc., Portable Gauges. |

CONDITIONS

10. The licensee does not take possession of the customer's radioactive materials and/or sealed sources while at the customer's facility except for analytical samples.
11. Licensed material 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, including areas of exclusive Federal jurisdiction within Agreement States.

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If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

12. The Radiation Safety Officer (RSO) for this license is Henry Barnes.
13. Licensed material shall only be used by, or under the supervision of, individuals who have received the training described in the letter dated February 29, 2020, and have been designated in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
14. 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 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.

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- 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.
15. Sealed sources or Source rods containing licensed material shall not be opened or sources removed from source holders or detached from source rods by the licensee, except as specifically authorized.
16. 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.
17. Except for maintaining labeling as required by 10 CFR Part 20, or Part 71, the licensee shall obtain authorization from the U.S. Nuclear Regulatory Commission before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications s indicated in the respective certificate of registration issued either by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or by an Agreement State.
18. 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 or storage, or when not under the direct surveillance of an authorized user.

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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. This license condition applies only to those procedures that are required to be submitted in accordance with the regulations. 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 November 25, 2019 (ML19352E446)

B. Letter dated February 29, 2020 (ML20069C176)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: March 10, 2020By: _____
Elizabeth Ullrich
Region 1