

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.

Licensee 1. U.S. Environmental Protection Agency Robert S. Kerr Environmental Research Center 2. 919 Kerr Research Drive P.O. Box 1198 Ada, Oklahoma 74820	In accordance with letter dated June 27, 2011 3. License number 35-11581-02 is amended in its entirety to read as follows: 4. Expiration date August 31, 2013 5. Docket No. 030-09517 Reference No.
---	---

6. Byproduct, source, and/or special nuclear material A. Hydrogen-3 B. Carbon-14 C. Phosphorus-32 D. Chlorine-36 E. Calcium-45 F. Iron-59 G. Americium-241 H. Cobalt-60 I. Nickel-63	7. Chemical and/or physical form A. Any B. Any C. Any D. Any E. Any F. Any G. Sealed neutron source (AEA Technology Model AMN.V997; Isotope Product Laboratories Model AM1.NO2) H. Sealed Source (Tracerlab Model R-31) I. Sealed Source (Isotope Products Laboratories Models NER-0004, NER-004R and NER-004P; Photovac Model 200155)	8. Maximum amount that licensee may possess at any one time under this license A. 5 millicuries B. 20 millicuries C. 5 millicuries D. 2 millicuries E. 2 millicuries F. 10 millicuries G. 10 millicuries per source and 10 millicuries total H. 5 millicuries per source and 5 millicuries total I. 15 millicuries per source and 225 millicuries total
---	---	--

9. Authorized Use:

A. through F.	For use in laboratory studies.
G.	For use in Troxler Electronic Laboratories Model 4300 Series portable gauging devices for measuring physical properties of materials.
H.	For use in the calibration of instruments and training of personnel.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
35-11581-02Docket or Reference Number
030-09517

Amendment No. 20

- I. To be used for sample analysis in Agilent Models G1533A, G2397A, HP5890A, HP5890, Photovac Model Voyager, and Smiths Detection Model 2428800-30 compatible gas chromatography devices that have been registered either with NRC under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with an NRC or Agreement State specific license authorizing distribution to persons specifically authorized by an NRC or Agreement State license to receive, possess, and use the devices.

CONDITIONS

10. A. Licensed material shall be used and stored at the licensee's facilities located at the Robert S. Kerr Environmental Research Center, 919 Kerr Research Drive, Ada, Oklahoma.
- B. Licensed material in items 6.G. through 6.I. may be used at temporary job sites 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.

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.

11. Licensed materials may be used by, or under the supervision of Garmon B. Smith, Jr.
12. The Radiation Safety Officer (RSO) for this license is Garmon B. Smith, Jr.
13. License material shall not be used in or on non human except as provided otherwise by specific condition of this license.
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 U.S. Nuclear Regulatory Commission 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 U.S. Nuclear Regulatory Commission 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 and the 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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
35-11581-02Docket or Reference Number
030-09517

Amendment No. 20

- 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. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 612 East Lamar Boulevard, Suite 400, Arlington, Texas 76011-4125, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- E. Tests for leakage 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. In addition, the licensee is authorized to collect leak test samples but not 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.
- F. Records of leak tests results shall be kept in units of microcuries and shall be maintained for 3 years.
15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
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 sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 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. 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 U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. 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."
19. A. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents the foil temperature from exceeding that specified by the manufacturer and approved by U.S. Nuclear Regulatory Commission.
- B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.
20. Except for maintaining labeling as required by 10 CFR Part 20 or 71, the licensee shall obtain authorization from 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 as indicated in the respective Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
35-11581-02Docket or Reference Number
030-09517

Amendment No. 20

21. 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, storage or when not under the direct surveillance of an authorized user.
22. 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.
23. A. If the licensee uses unshielded sealed sources extended more than 3 feet below the surface, the licensee shall use surface casing that extends from the lowest depth to 12 inches above the surface and other appropriate procedures to reduce the probability of the source or probe becoming lodged below the surface. If it is not feasible to extend the casing 12 inches above the surface, the licensee shall implement procedures to ensure that the cased hole is free of obstruction before making measurements.
- B. If a sealed source or a probe containing sealed sources becomes lodged below the surface and it becomes apparent that efforts to recover the sealed source or probe may not be successful, the licensee shall notify the U.S. Nuclear Regulatory Commission and submit the report required by 10 CFR 30.50(b)(2) and (c). The licensee shall not abandon the sealed source or probe without obtaining the Commission's prior written consent. Notification and reporting requirements should be made to the NRC Emergency Operations Center at 301-816-5100.
24. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
- A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and
- B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and
- C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
35-11581-02Docket or Reference Number
030-09517

Amendment No. 20

25. 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. Application dated February 26, 2003

[ML030780856]

B. Letter dated March 24, 2003

[ML030780856]



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: June 29, 2011

By: _____

/RA/

Lizette Roldán-Otero, Ph.D., Health Physicist
Nuclear Materials Safety Branch B
Region IV
Arlington, Texas 76011-4125