

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, 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. United States Testing Company, Inc.	3. License number 41-25235-02
2. 2024 Exeter Road, Suite 2 Memphis, Tennessee 38138	4. Expiration date May 31, 1998
	5. Docket or Reference No. 030-33035 (29-02477-07; 29-02477-05)

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 source (Technical Operations Model 77302)	A. Not to exceed 150 millicuries (5.55 GBq) per source and 450 millicuries (16.65 GBq) total
B. Cesium 137	B. Sealed sources registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	B. Not to exceed 10 millicuries (370 GBq) per source and 500 millicuries (18.5 GBq) total
C. Americium 241	C. Sealed neutron source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	C. Not to exceed 50 millicuries (1.85 GBq) per source and 1500 millicuries (55.5 GBq) total
D. Nickel 63	D. Plated foil in Hewlett-Packard Model 18173A and 19282-69501 detector cells	D. Not to exceed 15 millicuries (555MBq) and 300 millicuries (11.1 GBq) total
E. Nickel 63	E. Foil in Shimadzu Model FDC-9 detector cells	E. Not to exceed 10 millicuries (370 MBq) and 300 millicuries (11.1 GBq) total
F. Carbon 14	F. Any	F. 200 microcuries (7.4 MBq)

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9. Authorized Use:

- A. Possession and use in Technical Operations Model 773 calibrator for calibrating radiation survey meters
- B. and C. Possession and use in portable and non-portable gauging devices for determining properties of materials and which have been evaluated and approved for licensing purposes under license issued by the Nuclear Regulatory Commission or an Agreement State
- D. Possession and use in Hewlett-Packard 5790 gas chromatographs for sample analysis
- E. Possession and use in Shimadzu Model GC-9A gas chromatographs for sample analysis
- F. Possession and use in biodegradability and fate studies on research chemicals

**CONDITIONS**

- 10. A. Licensed material in Items 6. A through D may be used at:
  - 1. 1415 Park Avenue, Hoboken, New Jersey;
  - 2. 616 North Street, Jim Thorpe, Pennsylvania;
  - 3. 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 materials.
- B. Licensed material in Items 6. D through F shall be used only at the licensee's facility at 1415 Park Avenue, Hoboken, New Jersey.
- 11. The Radiation Safety Officer for this license is Randall Sweet, and in his absence, William Cain.
- 12. A. Licensed material in items 6. A through D shall be used by, or under the supervision and in the physical presence of, individuals who have been trained as specified in the application dated May 23, 1988 and letter dated December 6, 1988. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
- B. Licensed material in items 6. D through F shall be used by or under the supervision of Daniel Drozdowski or Alan Schoffman.
- C. Licensed material in items 6. B and C may be used by or under the supervision of and in the physical presence of individuals who have successfully completed the manufacturer's training program for gauge users and who have been designated by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed materials by the individual.
- 13. A. Sealed sources and detector cells 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. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.

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**CONDITIONS**

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- C. Sealed sources need not be leak tested if 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 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.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission 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 II, ATTN: Chief, Nuclear Materials Inspection Section, 101 Marietta Street N.W., Suite 2900, Atlanta, Georgia 30323. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- E. The licensee is authorized to collect leak test samples for analysis by Radiation Detection Company or Troxler Electronics Laboratories, Inc. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

- 14. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in 10 CFR 20.203(a)(1), the licensee is hereby authorized to label detector cells, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols.
- 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 5 years from the date of each inventory, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of the sources and/or devices, and the date of the inventory.
- 16. 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.
- 17. 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."

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18. 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 Commission or an Agreement State to perform such services.
19. Any cleaning, maintenance, or repair of the portable gauge(s) that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
20. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.
21. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
22. The licensee shall not store licensed material contained in waste for more than two years from the date the waste is put into storage. The licensee shall maintain records which indicate the date that licensed material contained in waste is put into storage.
23. The licensee shall not acquire licensed material in a sealed source or device that contains a sealed source unless the source or device has been registered with the Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.
24. The licensee shall not vacate or release to unrestricted use an office or storage location whose address is specified in Condition 10.A.1. or 10.A.2., without prior NRC approval. Reports of residual levels of contamination or other information concerning facility status may be required.
25. The licensee shall maintain records of information related to decommissioning at the offices of U.S. Testing Company, Inc., 2024 Exeter Road, Suite 2, Memphis, Tennessee, as specified in 10 CFR 30.35(g) until this license is terminated by the Commission.

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26. 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. Applications dated:

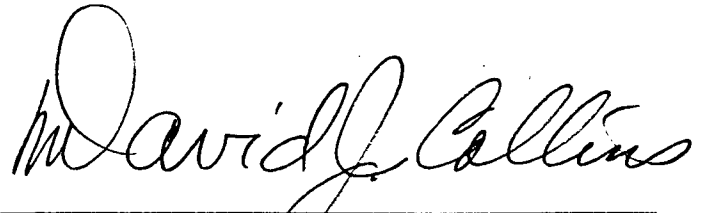
- 1. October 13, 1987
- 2. May 23, 1988

B. Letters dated:

- 1. October 19, 1988 [added locations]
- 2. November 9, 1988 [added information]
- 3. December 6, 1988 [renewal information additional]
- 4. May 8, 1989 [add gauges; delete location]
- 5. April 27, 1990 [Added locations field storage of gauges]
- 6. February 25, 1991 [Relocation at Hoboken office]
- 7. March 16, 1992 [add carbon-14 and users]
- 8. April 6, 1992 [request termination of 29-02477-05; combine here]
- 9. April 30, 1992 [added carbon-14 users information]
- 10. July 24, 1992 [change RSO, mailing address]

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DAVID J. COLLINS



DATE MAY 20 1993

BY

Region II, Nuclear Materials Licensing Section  
101 Marietta Street, N.W., Suite 2900  
Atlanta, GA 30323