

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 29-02477-01
2. 1415 Park Avenue Hoboken, New Jersey 07030		4. Expiration date September 30, 1999
		5. Docket or Reference No. 030-33619/41-25235-02
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 per source and 450 millicuries 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 per source and 500 millicuries 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 per source and 1500 millicuries total
D. Nickel 63	D. Plated foil in Hewlett-Packard Model 18173A and 19282-69501 detector cells	D. Not to exceed 15 millicuries and 300 millicuries total
E. Nickel 63	E. Foil in Shimadzu Model FDC-9 detector cells	E. Not to exceed 10 millicuries and 300 millicuries total
F. Carbon 14	F. Any	F. 200 microcuries

9. Authorized use

- A., B., C., E., and F. Storage only.
- D. In electron capture detector cells which are distributed under a specific license issued by the U.S. Nuclear Regulatory Commission or any Agreement State.

CONDITIONS

- 10. Licensed material may be used only at the licensee's facilities located at 1415 Park Avenue, Hoboken, New Jersey; 616 North Street, Jim Thorpe, Pennsylvania and 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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11. A. Licensed material in items 6.A. through 6.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. Licensed material in items 6.D. through 6.F. shall be used by or under the supervision of Daniel Drozdowski or Alan Schoffman. Licensed material in items 6.B. and 6.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.
- B. The Radiation Safety Officer for this license is Lee Fredericks.
12. Licensed material shall not be used in or on human beings.
13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
14. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
- C. 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.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) 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

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- (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer 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.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. 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 or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.
- G. 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.
15. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
16. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. 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.
19. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
20. 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.

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- 21. Any cleaning, maintenance, or repair of the 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.

- 22. 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 October 13, 1987
 - B. Application dated May 23, 1988
 - C. Letter dated October 19, 1988
 - D. Letter dated November 9, 1988
 - E. Letter dated December 6, 1988
 - F. Letter dated May 8, 1989
 - G. Letter dated April 27, 1990
 - H. Letter dated February 25, 1991
 - I. Letter dated March 16, 1992
 - J. Letter dated April 6, 1992
 - K. Letter dated April 30, 1992
 - L. Letter dated July 24, 1992

For the U.S. Nuclear Regulatory Commission

Date SEP 20 1994

Original Signed By:
Sheri Ann Arredondo

Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406