5.	NAC PRIBM 374
	(10-89)

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U.S. NUCLEAR REGULATORY COMMISSION

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## 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 Co	ompany, Inc.	3. License number	29-02477-01
2. 1415 Park Avenue Hoboken, New Jersey 070	30		September 30, 1999
	ر ما حصل	5. Docket or Reference No.	030-33619/41-25235-02
6. Byproduct, source, and/or special nuclear material	7. Chemical and form	d/or physical	8. Maximum amount that licensee may possess at any one time under this license
A. Cesium 137		ource (Technical ns Model 77302)	A. Not to exceed 150 millicuries per source and 450 millicuries total
B. Cesium 137	10 CFR 3	ed pursuant to 2.210 or an nt Agreement	B. Not to exceed 10 millicuries per source and 500 millicuries total
C. Americium 241	C. Sealed no register 10 CFR 3 equivale	eutron source ed pursuant to 2.210 or an nt Agreement	C. Not to exceed 50 millicuries per source and 1500 millicuries total
D. Nickel 63	D. Plated fo Packard I	oil in Hewlett- Model 18173A and 501 detector	D. Not to exceed 15 millicuries and 300 millicuries total
E. Nickel 63	E. Foil in S	Shimadzu Model tector 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. St D. In electron capture de	torage only. etector cells which	n are distributed	l under a specific license

## CONDITIONS

issued by the U.S. Nuclear Regulatory Commission or any Agreement State.

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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•		MATERIALS LICENSE	29-02477-01
٠,		SUPPLEMENTARY SHEET	Docket or Reference number 030-33619/41-25235-02
		<del></del>	
1.		Licensed material in items 6.A. through 6 supervision and in the physical presence of as specified in the application dated May 1988. The licensee shall maintain records for 3 years following the last use of lice Licensed material in items 6.D. through 6 supervision of Daniel Drozdowski or Alan Sitems 6.B. and 6.C. may be used by or under physical presence of individuals who have manufacturer's training program for gauge the Radiation Safety Officer. The license individuals designated as users for 3 year materials by the individual.	of, individuals who have been trained 23, 1988 and letter dated December 6, s of individuals designated as users ensed material by the individual. F. shall be used by or under the Schoffman. Licensed material in er the supervision of and in the successfully completed the users and who have been designated by see shall maintain records of
		The Radiation Safety Officer for this lice	302.11 10
2.	Licen	sed material shall not be used in or on hu	uman beings.
3.	The l	icensee shall not use licensed material in sed except as provided otherwise by specif	field applications where activity is fic condition of this license.
4.		Sealed sources and detector cells contain for leakage and/or contamination at intervals as are specified by referred to in 10 CFR 32.210, not to exceed	vals not to exceed six months or at the certificate of registration
		Notwithstanding Paragraph A of this Condital alpha particles shall be tested for leakage not to exceed three months.	
	1	In the absence of a certificate from a tra has been made within six months prior to t detector cell received from another person tested.	the transfer, a sealed source or
		Each sealed source fabricated by the licer construction defects, leakage, and contaminated source.	
	E.	Sealed sources and detector cells need not	be leak tested if:
•		(i) they contain only hydrogen-3; or	
	(	<ul><li>ii) they contain only a radioactive gas;</li></ul>	or
	, (i	ii) the half-life of the isotope is 30 da	ays or less; or
	•	iv) they contain not more than 100 microcommaterial or not more than 10 microcum	curies of beta and/or gamma emitting
			•

- Licensed material in items 6.A. through 6.D. shall be used by, or under the 11. A. 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.
  - В. The Radiation Safety Officer for this license is Lee Fredericks.
- Licensed material shall not be used in or on human beings. 12.
- 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.
- Sealed sources and detector cells containing licensed material shall be tested 14. A. 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.
  - Notwithstanding Paragraph A of this Condition, sealed sources designed to emit В. alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
  - In the absence of a certificate from a transferor indicating that a leak test C. 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.
  - Ε. Sealed sources and detector cells need not be leak tested if:
    - (i) they contain only hydrogen-3; or

- they contain only a radioactive gas; or (ii)
- the half-life of the isotope is 30 days or less; or (iii)
- they contain not more than 100 microcuries of beta and/or gamma emitting (iv) material or not more than 10 microcuries of alpha emitting material; or

NRC Form 374 (5-84)	A U.S. N' LEAR REGULATORY COMMISSION	License number	
	MATERIALS LICENSE SUPPLEMENTARY SHEET	29-02477-01  Docket or Reference number 030-33619/41-25235-02	
	being used. However, when they are transfer to another person, and have leak test interval, they shall be te	e not been tested within the required ested before use or transfer. No sealed ored for a period of more than 10 years	
F.	The test shall be capable of detecting th radioactive material on the test sample. 0.005 microcurie or more of removable con with the U.S. Nuclear Regulatory Commissis shall be removed immediately from service disposed of in accordance with Commission filed within five days of the date the le U.S. Nuclear Regulatory Commission, Regio Safety Branch, 475 Allendale Road, King o report shall specify the source or detect corrective action taken.  The licensee is authorized to collect lea Radiation Detection Company or Troxler El Alternatively, tests for leakage and/or c persons specifically licensed by the Comm such services.	If the test reveals the presence of tamination, a report shall be filed on and the source or detector cell and decontaminated, repaired, or regulations. The report shall be ak test result is known with the on I, ATTN: Chief, Nuclear Materials of Prussia, Pennsylvania 19406. The or cell involved, the test results, and the cell involved, the test results, and extremely a supplementation may be performed by	
seal	licensee shall conduct a physical inventor ed sources and devices containing licensed license.	y every six months to account for all material received and possessed under	
	ed sources or detector cells containing lices removed from source holders by the lic		
the	licensee shall not acquire licensed materi source or device has been registered with uant to 10 CFR 32.210 or equivalent regula	the U.S. Nuclear Regulatory Commission	
yell auth	ieu of using the conventional radiation ca ow background) as provided in 10 CFR 20.20 orized to label detector cells, containing matography devices, with conspicuously etcols.	3(a)(1), the licensee is hereby licensed material and used in gas	
	licensee is authorized to transport licensisions of 10 CFR Part 71, "Packaging and T		
prevo posi	portable nuclear gauge shall have a lock ent unauthorized or accidental removal of tion. The gauge or its container must be not under the direct surveillance of an a	the sealed source from its shielded locked when in transport, storage or	

- 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.
- 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.
- Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
- The licensee shall not acquire licensed material in a sealed source or device unless 17. 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.
- 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.
- The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
- 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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- Any cleaning, maintenance, or repair of the gauge(s) that requires removal of the 21. 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.
- Except as specifically provided otherwise in this license, the licensee shall conduct 22. 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
  - Application dated May 23, 1988 В.
  - Letter dated October 19, 1988 С.
  - D. Letter dated November 9, 1988
  - Letter dated December 6, 1988 Ε.
  - F.
  - Letter dated May 8, 1989 Letter dated April 27, 1990 G.
  - Letter dated February 25, 1991 Н.
  - Ι. Letter dated March 16, 1992
  - Letter dated April 6, 1992 J.
  - Letter dated April 30, 1992 Κ.
  - Letter dated July 24, 1992