

## 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 1, Parts 30, 31, 32, 33, 34, 35, 36, 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); and to import such byproduct and source material. 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. Virginia Dept. of Corrections	3. License number	45-19987-01
2. P. O. Box 26963 Richmond, Virginia 23261	4. Expiration date	March 31, 1987
	5. Docket or Reference No.	
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. Americium 241	A. Sealed neutron sources (Campbell Pacific Nuclear Model CPN-131)	A. Not to exceed 50 milli- curies per source
9. Authorized use		
A. For use in Campbell Pacific Nuclear Model MC-M gauges for moisture density measurements.		

## CONDITIONS

10. Licensed material may be used at 5001 W. Broad Street, Richmond, Virginia 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.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision and in the physical presence of, H. P. Jackson, ~~Harry R. Loring~~, or ~~Ellis Mann~~.

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CONDITIONS

(continued)

13. Sealed sources containing licensed material shall not be opened or removed from the portable moisture/density gauges by the licensee.
14. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed one year. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.  
(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.  
B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.  
C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region II, Office of Inspection and Enforcement, 101 Marietta Street, Suite 3100, Atlanta, Georgia 30303, describing the equipment involved, the test results, and the corrective action taken.  
D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.



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14. continued

- E. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated February 25, 1982, for analysis by Campbell Pacific Nuclear Corporation.
15. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, location of sealed sources, and the date of the inventory.
16. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions."
17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated February 25, 1982. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

APR 05 1982

Date

For the U.S. Nuclear Regulatory Commission

Original signed by  
Paul E. Quinn

By Material Licensing Branch

Division of Fuel Cycle and  
Material Safety  
Washington, D.C. 20555

PG  
4/3/82

# TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

ANDREW J. OATES

of

COMMON WEALTH OF VIRGINIA

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.  
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

## Radiological Safety

- |  |   |
|--|---|
| 1. Principles and practices of radiation protection.                               | 5. Radioactivity measurement standardization and monitoring techniques and instruments. |
| 2. Leak testing procedures.  | 6. Accident and incident procedures.  |
| 3. Mathematics and calculations basic to the use and measurement of radioactivity. | 7. Procedures for nuclear gauge storage and transportation.                             |
| 4. Biological effects of radiation.  | 8. General safety precautions.  |

## Gauge Operation

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|-------------------------|----------------------|
| 1. Instrument theory    | 4. Field application |
| 2. Operating procedures | 5. Gauge calibration |
| 3. Maintenance          |                      |

Brian W. Potter  
INSTRUCTOR

4/4/85  
DATE

W.F. TROXLER  
PRESIDENT

**No 10592**