

**OFFICIAL RECORD COPY****MATERIALS LICENSE**

Amendment No. 18

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		In accordance with letter dated November 20, 1996	
1. Troxler Electronic Laboratories, Inc.		3. License Number	32-05998-03
		is amended in its entirety to read as follows:	
2. P. O. Box 12057 Research Triangle Park, North Carolina 27709		4. Expiration Date	February 28, 2003 (Extended)
		5. Docket or Reference No.	030-05595
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 registered pursuant to the provisions of 10 CFR 32.210 or equivalent Agreement State Regulation	A. Not to exceed 300 millicuries per source	
B. Cesium 137	B. Sealed sources registered pursuant to the provisions of 10 CFR 32.210 or an equivalent Agreement State Regulation	B. Not to exceed 10 millicuries per source	
C. Cesium 137/Americium 241	C. Combined sealed sources registered pursuant to the provisions of 10 CFR 32.210 or an equivalent Agreement State Regulation	C. Not to exceed 10 millicuries of cesium 137 and 125 millicuries of americium 241 per source	
D. Californium 252	D. Sealed neutron sources registered pursuant to the provisions of 10 CFR 32.210 or an equivalent Agreement State Regulation	D. Not to exceed 150 microcuries per source	

## 9. Authorized Use:

A. through D. For possession in Troxler gauging devices for sales demonstrations, density-moisture measurements of materials.

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number  
32-05998-03

Docket or Reference Number  
030-05595

Amendment No. 18

**CONDITIONS**

10. Licensed material may be used 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 Radiation Safety Officer for the activities authorized by this license is Stephen A. Browne.
12. Licensed material shall only be used by, or under the supervision and in the physical presence of, Stephen A. Browne, or, individuals who have received the training described in the letter dated January 29, 1992 and have been approved in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for five years following the last use of licensed material 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. 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 3 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. 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 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 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.
  - E. 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 Licensing/Inspection Branch, 101 Marietta Street N.W., Suite 2900, Atlanta GA 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.
  - F. Tests for leakage and/or contamination may be collected for analysis by the parent organization, Troxler Electronics Laboratories, Inc., or by other persons specifically licensed by the Commission or an Agreement State to Perform such services.

MATERIALS LICENSE  
SUPPLEMENTARY SHEETLicense Number  
32-05998-03Docket or Reference Number  
030-05595

Amendment No. 18

## CONDITIONS

Continued-

14. This license does not authorize installation, removal, replacement and/or disposal of sealed sources.
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. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
17. The licensee shall maintain records of information important to safe and effective decommissioning at 3008 Cornwallis Road, Research Triangle Park, North Carolina pursuant to the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
18. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum specified 10 CFR 30.35(d) for establishing decommissioning financial assurance.
19. 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. Letters dated:
- (1) November 13, 1990 [RSO Training and Experience]
  - (2) July 25, 1991 [Add Cf-252, Clarify use, description]
  - (3) March 19, 1992 [Movement of storage location]
  - (4) September 23, 1992 [Renewal request]
  - (5) January 29, 1993 [Describe training program]
  - (6) January 28, 1994 [Delete Danbury CT as storage location]
  - (7) April 21, 1994 [Name Corporate Radiation Safety Officer, includes resumé]
  - (8) March 1, 1996 [NRC letter extends expiration date in accordance with 10 CFR 30.36]
  - (9) November 20, 1996 [change RSO]

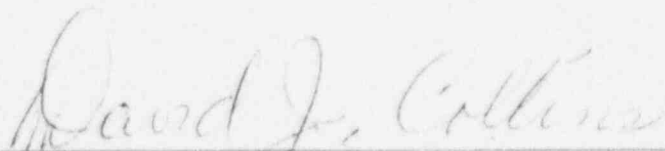
FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DAVID J. COLLINS

Date

DEC 09 1996

By

Region II, Division of Nuclear Materials Safety  
101 Marietta Street N.W., Suite 2900  
Atlanta, GA 30323-0199

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W., SUITE 2900  
ATLANTA, GEORGIA 30323-0199

DEC 09 1996

INFORMATION FOR NRC MATERIAL LICENSEES

Please find enclosed: ☒ Your NRC material license  
☐ Amendment to your NRC material license  
☐ Amendment renewing your NRC material license  
☐ Amendment terminating your NRC material license  
☐ Notice for Radiographer Quality Assurance Approval Program

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify this office (ATTN: Ms. Diane Heim at (404) 331-4673) so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day in the month and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR 19, "Notice, Instructions and Reports to Worker Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Not possess and use materials authorized in Items 6, 7, and 8, on the license until:
  - a. you have constructed the facilities and obtained the equipment described in the license application and supporting documentation; and
  - b. you have notified the U. S. Nuclear Regulatory Commission, Region II, ATTN: Materials Licensing/Inspection Branch, in writing, that activities authorized by the license will be initiated
  - c. you have submitted & certified implementation of a Quality Management Program (10 CFR 35.32) for radiotherapy, or for administering > 30 uCi of I-125 or I-131.
3. Notify NRC, in writing, within 30 days:
  - a. when an authorized user, Radiation Safety Officer, or Teletherapy Physicist permanently discontinues performance of duties under the license or has a name change; or
  - b. when the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).
4. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
  - a. when you decide to terminate all activities involving materials authorized under the license;
  - b. if you decide not to complete the facility, acquire equipment, or possess and use authorized material.

## 5. Request and obtain a license amendment before you:

- a. receive or use byproduct material for a clinical procedure permitted under Part 35 but not permitted by your license issued pursuant to this part.
- b. permit anyone, not authorized under 10 CFR 35, Subpart J, to work as an authorized user under a license for medical use of byproduct material.
- c. permit anyone, not authorized under 10 CFR 35, Subpart J, to work as a Radiation Safety Officer, Teletherapy Physicist, or Nuclear Pharmacist, under a license for medical use of byproduct material.
- d. order byproduct material in excess of the amount, or a different radionuclide or form, other than authorized on the license;
- e. add or change the areas of use or address (or addresses) of use identified in the license application or on the license; or
- f. change ownership of your organization.

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. Transfer of licensed materials must be consistent with 10 CFR 30.41, 40.51 or 70.42, as applicable. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a Notice of Violation, or imposition of a Civil Penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, (7/95). Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken against those who do not achieve the necessary attention to detail and standard of compliance expected of licensees.

Thank you for your cooperation.

## Enclosures:

- 1. NRC License
- 2. Category Marked Below for:
  - ☐ New licenses: NUREG-1600 (7/95); 19; 20; 30; 40 or 70, as appropriate; 71; 170; NRC Form 3, Agreement State list; and NRC Form 313.
  - ☐ New radiography licenses: Parts 34; 150.
  - ☐ New medical and teletherapy licenses: Part 35.
  - ☐ Amendments and renewals: NRC Form 313.



BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
:  
: Program Code: 03121  
: Status Code: 0  
: Fee Category: 3P  
: Exp. Date: 20030228  
: Fee Comments: 3N DELETED 8/29/91  
: Decom Fin Assur Req'd: N  
: ::::::::::::::::::::::::::::::

LICENSE FEE TRANSMITTAL

A. REGION II

1. APPLICATION ATTACHED

Applicant/Licensee: TROXLER ELECTRONIC LABS., INC.  
Received Date: 961125  
Docket No: 3005595  
Control No.: 257289  
License No.: 32-05998-03  
Action Type: Amendment

2. FEE ATTACHED

Amount: 300.00  
Check No.: 125379

3. COMMENTS

Signed DIANE HEIM  
Date 11/26/96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ☒)

1. Fee Category and Amount: 3P \$300

2. Correct Fee Paid. Application may be processed for:

Amendment ☒  
Renewal ☐  
License ☐

3. OTHER

Signed Rita Spassier  
Date 12/2/96

Log	<u>Dec I II</u>
Remitter	
Check No.	<u>125379</u>
Amount	<u>\$300</u>
Fee Category	<u>3P</u>
Type of Fee	<u>amd</u>
Date Check Rec'd.	
Date Completed	<u>12/2/96</u>
By:	<u>Rm</u>

# T R O X L E R

November 20, 1996

Ms. Diane Hein  
Nuclear Materials Licensing Section  
U.S. Nuclear Regulatory Commission, Region II  
1010 Marietta Street, N.W. Suite 2900  
Atlanta, GA 30323-0199

Dear Ms. Hein:

Please amend license number 32-05998-03 to add Mr. Stephen A. Browne as the Radiation Safety Officer in place of Mr. Michael R. Dishman, who is no longer employed by our company. A check covering the amendment fee and a resume showing Mr. Browne's qualifications and experience are enclosed.

Thank you for your assistance.

Sincerely,



Ali Regimand  
Vice President, Research and Development

Enclosure

cc: S. Browne  
S. Babcock

207209

**Troxler Electronic Laboratories, Inc. • Troxler International, Ltd.**

3008 Cornwatts Road, P.O. Box 12357, Research Triangle Park, North Carolina 27709, U.S.A.  
Telephone 919/549-8661 • FAX 919/549-0761

## STEPHEN A. BROWNE

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808 Queensferry Road • Cary, North Carolina 27511 • (919) 467-1390

### EXPERIENCE

1979 - 96 **Carolina Power & Light Company, Raleigh, NC**

#### **Manager, Dosimetry (1993 - 1996)**

Managed all aspects of NVLAP-accredited dosimetry program for four operating nuclear power plants, including environmental and personnel TLD processing, in-vivo monitoring, internal/external dose calculation, centralized personnel exposure records management and dose reporting, procedure development, dosimeter calibration, training, and quality assurance. Directed comprehensive radiation safety program for central laboratory involving licensing, radioactive material inventory and control, radiological work control, x-ray machine use, personnel monitoring, sealed source leak testing, instrument calibration, and radwaste disposal. Managed operation and maintenance of comprehensive radiological information management system supporting all company nuclear plants.

- Conducted benchmarking comparisons, reengineered work processes, and implemented numerous cost reduction measures
- Designed, developed, installed, and maintained automated access control/electronic personal dosimeter (EPD) system at all company nuclear plant sites
- Implemented use of EPDs for dose of record monitoring in lieu of TLDs and became first organization in U.S. to be NVLAP accredited for EPD use
- Developed standardized dosimetry procedures used at all company nuclear plants for all aspects of personnel monitoring and dosimetry

#### **Principal, Project, and Senior Specialist, Health Physics (1979-93)**

Supervised and directed dosimetry program and provided technical health physics support to four operating nuclear plants.

- Rewrote corporate radiation control manual for implementation of new 10 CFR 20 radiation protection rule at all company nuclear plants
- Performed emergency response off-site dose projection calculations
- Performed complex dose calculations for incidents involving high unmonitored exposure of worker's hand to beta radiation and internal intakes of Am-241
- Directed numerous technical studies and wrote reports
- Conceived and directed project to computerize historical exposure history records
- Designed and directed development of comprehensive radiological information management system for all company nuclear plants
- Customized TLD system software and developed TLD dose algorithm
- Directed upgrade, calibration, and operation of mobile WBC system and fixed WBC systems at all company nuclear plant sites
- Testified as expert witness before Atomic Safety & Licensing Board in Shearon Harris Nuclear Power Plant license hearings
- Installed automated TLD system, developed operating procedures, established comprehensive quality assurance program, and supervised routine system operation
- Designed, set up, and operated instrument/dosimeter calibration facility

207289



1974-79      **General Electric Company**, Knolls Atomic Power Laboratory, Windsor, CT

**Lead Engineer and Health Physicist, Radiological Controls Tech. Support (1978-79)**

Supervised environmental and effluent monitoring, personnel dosimetry, radioactive shipments, instrument calibration, procedure development, emergency planning, and radiological support at navy nuclear reactor facility.

1972-74      **Packard Instrument Company**, Downers Grove, Illinois

**Radiation Safety Officer**

Managed health physics and occupational safety programs for nuclear equipment manufacturing firm. Duties included personnel monitoring program, NRC license compliance, radiation and contamination monitoring, decontamination of equipment and facilities, waste disposal, and radionuclide handling procedures.

**PROFESSIONAL ACTIVITIES AND AFFILIATIONS**

1984-96      **National Institute for Standards & Technology (NIST)**, served as technical expert/assessor for the National Voluntary Laboratory Accreditation Program (NVLAP) performing over 30 assessments of dosimetry programs throughout U.S.

1991-96      **ANSI 13.6 Working Group**, Practice for Occupational Radiation Exposure Records Systems

1994-96      **ANSI N13.27 Working Group**, Performance Requirements for Pocket-Sized Alarm Dosimeters and Alarm Ratemeters

1995-96      **Nuclear Energy Institute**, Dosimetry and Recordkeeping Task Force

1972-96      **Health Physics Society**

1985-94      Numerous technical presentations at national symposiums.

**EDUCATION AND TRAINING**

**M.S., Environmental Health (Radiation Health)**, GPA 3.6/4.0

**Northwestern University**, Evanston, Illinois

**B.S., Physics, Cum Laude**

**Union College**, Schenectady, New York

Numerous company sponsored management development courses (15)

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125379

INVOICE NO.	INVOICE DATE	DESCRIPTION	GROSS AMOUNT	DISCOUNT	NET AMOUNT
000000 320599803	VENDOR 96/11/06	U.S. NUCLEAR REGULATORY LICENSE	300.00	CHECK DATE .00	96/11/15 300.00
CHECK NUMBER	125379	<b>TOTALS</b>	300.00	.00	300.00

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125379



P.O. BOX 12057 • 3008 CORNWALLIS ROAD  
RESEARCH TRIANGLE PARK, NC 27709

CHECK DATE	CHECK NO.
96/11/15	125379

CHECK AMOUNT

\*\*\*\*\*300.00

FIRST CITIZENS BANK & TRUST CO.  
RESEARCH TRIANGLE PARK,  
NORTH CAROLINA

66-30

631

THREE HUNDRED AND 00/100\*\*\*\*\*

TO THE  
ORDER OF

U.S. NUCLEAR REGULATORY  
COMMISSION  
REGION 11 1010 MARIETTA  
ATLANTA GA 30323-0199

*[Signature]*  
AUTHORIZED SIGNATURE

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