

**INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/>. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.**

**APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

MATERIALS SAFETY LICENSING BRANCH  
 DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS  
 OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
 U.S. NUCLEAR REGULATORY COMMISSION  
 WASHINGTON, DC 20555-0001

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:**

**IF YOU ARE LOCATED IN:**

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

**SEND APPLICATIONS TO:**

LICENSING ASSISTANCE TEAM  
 DIVISION OF NUCLEAR MATERIALS SAFETY  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
 2100 RENAISSANCE BOULEVARD, SUITE 100  
 KING OF PRUSSIA, PA 19406-2713

**IF YOU ARE LOCATED IN:**

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
 2443 WARRENVILLE ROAD, SUITE 210  
 LISLE, IL 60532-4352

**IF YOU ARE LOCATED IN:**

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING,

**SEND APPLICATIONS TO:**

NUCLEAR MATERIALS LICENSING BRANCH  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
 1600 E. LAMAR BOULEVARD  
 ARLINGTON, TX 76011-4511

**PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.**

1. THIS IS AN APPLICATION FOR (Check appropriate item)

A. NEW LICENSE

B. AMENDMENT TO LICENSE NUMBER 32-35585-01

C. RENEWAL OF LICENSE NUMBER \_\_\_\_\_

2. NAME AND MAILING ADDRESS OF APPLICANT (Include zip code)

Troxler Electronic Laboratories, Inc.  
 PO Box 12057  
 Research Triangle Park, NC

3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED

102 Wooster St. Unit A-7  
 Bethel, CT 06801

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

William Troxler

BUSINESS TELEPHONE NUMBER	BUSINESS CELLULAR TELEPHONE NUMBER
919-549-8661	
BUSINESS E-MAIL ADDRESS	
rso@troxlerlabs.com	

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (Fees required only for new applications, with few exceptions\*)  
 (See 10 CFR 170 and Section 170.31)  
 \*Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.

FEE CATEGORY	AMOUNT ENCLOSED \$

**PER THE DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), YOU ARE REQUIRED TO PROVIDE YOUR TAXPAYER IDENTIFICATION NUMBER. PROVIDE THIS INFORMATION BY COMPLETING NRC FORM 531: <https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html>.**

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE	SIGNATURE	DATE
William F. Troxler, Jr.		10-26-23

FOR NRC USE ONLY					
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

Troxler Electronic Laboratories  
Application for Amendment to NRC License 32-35585-01 Nuclear Gauge Service

Item 3 Address(es) Where Licensed Material Will Be Used or Possessed

For temporary sites records will be maintained at:

3008 E. Cornwallis Road  
Research Triangle Park, NC 27709

For service performed at the Bethel, Connecticut location, material will be possessed, and records will be kept at:

102 Wooster St. Unit A-7  
Bethel, CT 06801

Work may be performed at temporary jobsites anywhere in the United States where the NRC maintains jurisdiction.

Troxler Electronic Laboratories  
Application for Amendment to NRC License 32-35585-01 Nuclear Gauge Service

Items 5 and 6 - Materials to be Possessed and Proposed Uses

<b>Radionuclides</b>	<b>Manufacturer or Distributor Model No.</b>	<b>Quantity</b>	<b>Proposed Uses</b>
A. Cesium-137	Sealed source in gauges covered by certificate of registration (SS&D) issued by the US Nuclear Regulatory Commission or an Agreement State	Not to exceed the maximum activity specified in the SS&D certificates.	To be used in accordance with the applicable device SS&D certificate.
B. Americium-241	Sealed source in gauges covered by certificate of registration (SS&D) issued by the US Nuclear Regulatory Commission or an Agreement State	Not to exceed the maximum activity specified in the SS&D certificates.	To be used in accordance with the applicable device SS&D certificate.
C. Californium-252	Sealed source in gauges covered by certificate of registration (SS&D) issued by the US Nuclear Regulatory Commission or an Agreement State	Not to exceed the maximum activity specified in the SS&D certificates.	To be used in accordance with the applicable device SS&D certificate.

Troxler Electronic Laboratories (TEL) will be servicing and calibration these devices at customer locations. TEL will not be taking possession of the sealed sources and devices.

TEL will not be handling unsealed material under this license.

TEL shall restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d), 10 CFR 40.36(b), and 10 CFR 70.25(d), for establishing decommissioning financial assurance. Additionally, an emergency plan is not required per 10 CFR 30.32(i),

Troxler Electronic Laboratories  
Application for Amendment to NRC License 32-35585-01 Nuclear Gauge Service

Item 7 - Individual(s) Responsible for Radiation Safety Program

The Radiation Safety Officer for this license is Mr. Henry E. Barnes.

This individual is the Corporate RSO for Troxler Electronic Laboratories, Inc. In this position, he has direct communication with company management and provides day-to-day oversight of the radiation safety activities. The RSO will be available for emergencies and can be on-site within 24–48 hours, if applicable.

Item 8 – Training for Individuals Working in or Frequenting Restricted Areas

Before working in the vicinity of licensed materials, Service personnel will have successfully completed training commensurate with assigned duties.

Item 9 – Facilities and Equipment

Troxler will never take possession of licensed material under this license. Service activities will be performed at customer sites.

Item 10 – Radiation Safety Program

Operating and Emergency Procedures	Operating and emergency procedures will be developed, implemented, and maintained and will meet the criteria in the section entitled "Radiation Safety Program – Operating and Emergency Procedures" in NUREG-1556 Vol. 18
Material Receipt and Accountability	Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.
Survey instruments	We will use instruments that meet the radiation monitoring instrument specifications published in Appendix F of NUREG–1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses"
Surveys	Only sealed sources will be handled under this license. No unsealed material will be processed, and no liquid or gaseous effluents will be produced.
Leak Test	Leak test will be performed at intervals approved by NRC or an Agreement State and specified in the Sealed Source and Device Registration Sheet. Leak tests will be performed by an organization

Troxler Electronic Laboratories  
 Application for Amendment to NRC License 32-35585-01 Nuclear Gauge Service

	authorized by NRC or Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the kit suppliers instructions.
Occupational Dosimetry	Troxler employees will be monitored using whole body dosimetry provided by a NVLAP-approved processor. The dosimetry will be exchanged on a quarterly basis.
Public Dose	No response is required from the applicant in a license application, but compliance will be evaluated during inspection.
Transportation	Troxler will not normally be providing transportation of gauges. The gauge owner will provide and be responsible for the transportation to and from the location where service is provided. If Troxler employees must transport radioactive materials, the material will be transported in accordance with DOT regulations. All Troxler service personnel will have current HAZMAT training / retraining.
Maintenance	<u>Routine Cleaning and Lubrication</u> We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions. <u>Non-Routine Maintenance</u> Manufacturer trained personnel may perform other routine and non-routine maintenance or repair operations that require the removal of the source rod from the gauge. The source rod is removed for ALARA purposes and the stored in a lead shield. Sources will never be removed from the source rod assembly.
Audit and Review	The Radiation Protection program will be periodically audited, and results kept for inspection. Records required by this license will be maintained for review by the Agency.
Security	As Troxler will be traveling to customer locations to provide service, security is the responsibility of the customer.
Waste Management	Only Sealed Sources are handled on this license. No Rad Waste will be generated. If a Sealed Source needs to be disposed of, it will be transferred to a recipient authorized to receive the radioactive material.

Troxler Electronic Laboratories  
Application for Amendment to NRC License 32-35585-01 Nuclear Gauge Service

### Operating and Emergency Procedures

#### Administrative

TEL will obtain an agreement with the customer outlining the responsibilities of both the customer and TEL. This agreement should cover:

- A description of roles and responsibilities of the service provider and the customer
- An agreement as to who will maintain security of the radioactive material
- A discussion on security as it relates to other customers gauges brought to the site (example: during co-mingling of multiple sources (gauges) from multiple customers)
- A discussion of who will take the lead for any emergency situations that might arise during this service call

#### Operating Procedures

TEL's service of portable nuclear gauges involves removal of the source rod from the device and storing it in a lead shield during service. This results in lower overall dose to the service technician.

All Troxler Service technicians have received training regarding removal and re-installation of source rods.

The following steps will be implemented during gauge service.

- Multiple gauges may be in calibration at any one time, but only one gauge will be serviced at a time.
- Radioactive sources will be under constant surveillance if not secured against unauthorized removal or access.
- Personnel shall use ALARA techniques for handling gauges and source rods so as to minimize exposure. Sources should never be touched with the bare hands.
- The work area will be posted as CAUTION – RADIOACTIVE MATERIALS or CAUTION – RADIATION AREA, as appropriate.
- All parts, components, materials used will be as recommended by the manufacturer or distributor. Should that not be possible, the item(s) in questions will be evaluated to ensure that they do not degrade the engineering safety analysis performed and accepted as part of the original device registration.
- When service is complete on a gauge, the gauge shall be returned to the storage area. At the end of the work period, all gauges and sources will be stored in the storage area and the storage area locked.
- Service is provided at the customer's location, so it is the responsibility of the customer to transport their gauges to and from the work location. If Troxler personnel are required to transport radioactive materials, all DOT applicable regulations are required to be followed.
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#### Emergency Procedures

Emergencies are unplanned events that may not allow for strict procedures. Please see the attachment titled: 'Emergency Actions for Remote Service Locations' for an overview of the expected response to anticipated emergencies.

Troxler Electronic Laboratories  
Application for Amendment to NRC License 32-35585-01 Nuclear Gauge Service

- Instructions for handling and using licensed materials.
- Instructions for maintaining security during storage and transportation.
- Instructions to keep licensed material under control and immediate surveillance during use.
- Instructions for posting areas and labeling containers.
- Steps to take to keep radiation exposures ALARA.
- Steps to maintain accountability during use.
- Steps to control access to work sites.
- Instructions for using remote handling tools when handling sealed sources, except low activity calibration sources.
- Methods and occasions for conducting radiation surveys, including surveys for detecting contamination.
- Procedures to minimize personnel exposure during routine use and in the event of an incident, including exposures from inhalation and ingestion of licensed unsealed materials.
- Methods and occasions for locking and securing stored licensed materials.
- Procedures for personnel monitoring, including bioassays, and the use of personnel monitoring equipment.
- Procedures for transporting licensed materials to temporary jobsites, packaging of licensed materials for transport in vehicles (private or common carrier), placarding of vehicles when needed, and physically securing licensed materials in transport vehicles during transportation, to prevent accidental loss, tampering, or unauthorized removal.
- Procedures for picking up, receiving, and opening packages containing licensed materials, in accordance with 10 CFR 20.1906, "Procedures for receiving and opening packages."
- Instructions for maintaining records, in accordance with the regulations and the license conditions.
- Procedures for identifying and reporting to the NRC defects and noncompliance, as required by 10 CFR 21.21(a).
- Procedures and actions to be taken in an emergency situation that will cover all likely scenarios, including actions to prevent the spread of contamination and minimize inhalation and ingestion of licensed materials and actions to obtain suitable radiation survey instruments.
- Instructions for the proper storage and disposal of radioactive waste.
- Procedures to be followed in the event of uncontrolled release of radioactive unsealed licensed material to the environment, including notification of the RSO, NRC, and other Federal and State agencies.
- Procedures for identifying and reporting to the NRC incident notifications (see Table 8-2 for a description of the typical incident notifications required by NRC regulations).
- Procedures for the implementation and adherence to good health physics practices while performing service operations, such as:
  - minimization of distance to areas, to the extent practicable, where licensed materials are used and stored
  - maximization of survey frequency, within reason, to enhance detection of contamination
  - segregation of radioactive material in waste storage areas
  - segregation of sealed sources and tracer materials to prevent cross-contamination
  - separation of radioactive material from explosives
  - separation of potentially contaminated areas from clean areas by barriers or other controls
- Method for reviewing the entire radiation safety program at least annually.