

(10-94)
10 CFR 30, 32, 33,
34, 35, 36, 39 and 40

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-8 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
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:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENOALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

US NRC RII-ATLANTA FEDERAL CENTER
SUITE 23T85, ATTN: DNMS
61 FORSYTH STREET
ATLANTA, GA 30303

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, 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 SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

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 _____
- C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (include Zip code)

Thompson's, Inc. of Danville, Virginia
250 Bryant Avenue
Danville, VA 24540

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

- 1. Storage Site - 250 Bryant Ave.; Danville, VA 24540
- 2. Gauge will be used on temporary job sites throughout USA

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Steven V. Robinette
TELEPHONE NUMBER
(804) 791-4480

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 EXPERIENCE.

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

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)
FEE CATEGORY 3P | AMOUNT ENCLOSED \$ 750.00

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, 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
Steven V Robinette, Estimator

SIGNATURE
Steven V. Robinette

DATE
1/20/98

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

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5. Radioactive Material: Element and mass number, Chemical and/or physical form and maximum amount which will be possessed at any one time:

<u>RADIONUCLINE</u>	<u>SEALED SOURCE</u>	<u>MAX. ACTIVITY/ SOURCE</u>
CS-137	Troxler A-102112	9 mc:
AM- 241:BE	Troxler A- 102451	44 mc:

We will confine our possession of licensed material to quantities such that we will not exceed the applicable limits in 10 CFR 30.35 (D)

6. Purpose for which licensed material will be used:

Gauge/ gauges will be used in Troxler Model 3450, 4640 series gauges to measure the density of soils, aggregates and construction material.

For use in Troxler Model 3450 series gauge measuring hydrogen with relation to moisture content of construction/ building material.

7. Individual (s) responsible for Radiation Safety Program and their training experience: RSO will be Mr. Steven V. Robinette who was certified by Troxler Laboratories on Use of Nuclear Testing Equipment on 5/07/92. He will also be taking this course again before use of gauge.

Management commits that the above named RSO is authorized to stop unsafe operations and will be given sufficient time to perform duties and responsibilities of an RSO. Job title of RSO is Estimator in which he reports directly to President of Company Mr.Scott Thompson.

Management will have annual audits to ensure RSO has up to date regulations, reviews new or amended regulations, and makes appropriate changes to comply with regulations. Management will also ensure that the duties and responsibilities of the RSO will meet the criteria outlined in the enclosed sheet on Duties of the RSO.

8 Training for individuals working in or frequenting restricted areas:

Each individual that will operate the nuclear gauge will complete the Troxler Nuclear Gauge Training Course. The individual will receive copies of and training in gauge operating and emergency procedures and have written designation from the RSO as an authorized gauge user. Copies of each individual's Troxler training certificate, commitment that course meets NRC requirements, written acknowledgement of operator/ emergency training, and a written RSO designation will be maintained for 3 years after the individual terminates employment.

9 Facilities and Equipment.

Gauge will be stored in locked box inside locked garage which is inside fenced lot (See enclosed diagram). Gate will remain locked after work hours and the storage box will remain locked at all times when equipment is inside. Keys to the storage box will be controlled by the RSO and authorized users. Gauge and case will be transported to job

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site locked and chained in open bed truck. During breaks or lunch, gauge will be returned to transport case and will be secured in transport vehicle. Constant surveillance will be maintained when the gauge is removed from the transport vehicle or temporary storage facility.

10. Radiation Safety Program:

All gauge users will be monitored with TLD badges when operating gauges. Supplier of badges will be Troxler Radiation Monitoring Services, P.O. Box 12057, Research Triangle Park, NC. 27709. Type of badge will be Thermoluminescent Dosimeter (TLD) Beta, Gamma, X-Ray, and neutron measurement. Exchange Frequency will be Quarterly.

There will be a TroxAlert survey instrument capable of measuring between 0-100 mrem/hr (0-1000 uSv/hr) available at main office.

Gauge will be calibrated annually by manufacturer, Troxler Electronic Labs, NRC License # 32-05998-03, NC Dept. of Environment, Health and Natural Resources Lic. # 32-0182-1.

Type of Instrument is GM Survey Instrument, Radiation Detected (alpha, beta, gamma and X-ray), Sensitivity Range (0- 100 mR/hr., Window Thickness 1.4mg/cm squared.

Prior to operation of the gauge the response of the survey meter will be checked using the gauge sources. During absence of the survey meter for calibration a replacement meter will be used or the gauge will remain in storage until the return of the survey meter from calibration.

Leak Tests will be performed at intervals not to exceed 6 months. A Troxler Leak Test Kit 3880 will be used and the supplier instructions will be followed when collecting the sample. Troxler Electronic Laboratories, Inc. Leak Test Service is licensed according to NC Radioactive Materials License number 032-0182-1. Leak Test analysis is performed on samples from the Troxler Model 3880 leak test kit. Samples are analyzed with a Baird Polyspec Research Nuclear Spectrometer Model # 062411 that is calibrated with NIST traceable sources of CS-137, CL-136 and AM-241. Analysis and the return of result are typically performed on the day of receipt of the leak test wipe. Troxler will request a re-test for activity detected between 0.00005 and 0.005 microcurie. Troxler will immediately notify the customer for activity detected that is greater than 0.005 microcurie, and advise that the sealed source should be removed from service. A written report to the customer will follow. A perpetual record of all leak tests is maintained by Troxler and duplicates are available upon request.

An inventory of all sealed sources and devices possessed under this license will be conducted at intervals not to exceed 6 months, and records will be maintained for at least 3 years from date of the inventory. Inventory records will include the radionuclide, amount or activity and the manufacturer's name, model number and serial number.

All maintenance will be performed with the radioactive source in the safe shielded position in accordance with the manufacturer's directions included in the operator manual. (cleaning and lubrication only). Extensive maintenance will be performed by gauge manufacturer.

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Transportation of Gauge to field location will be maintained under current DOT (49CFR) regulations and will develop and implement procedures for complying with applicable DOT regulations. Current applicable regulations will be ordered and/or updated from the Government printing order desk at (202) 512-1800.

Thompson's Inc. will implement the operating and emergency procedures as stated in this correspondence. A copy of these procedures will be distributed to gauge users before initial use of equipment. A copy of these procedures will be on file at each job site stored separate from the gauge. These procedures will be appended if equipment is to be used at depths greater than 3 feet.

STANDARD OPERATING PROCEDURES

1. Before removing the gauge from its place of storage, check to make sure that the gauge source rod is in the shielded, locked position, and lock the transport case.
2. Sign the gauge out in a log book, stating the dates of use, names of the authorized users who will be responsible for the gauge, and the temporary job sites where the gauge will be used.
3. Equipment outside the transport vehicle or storage site should never be left unattended.
4. Follow all applicable DOT requirements when transporting the gauge.
5. Do not touch the end of the source rod below the base of the gauge with your fingers, hands, or any part of your body, and always make sure the source is in the shielded position after each measurement is made.
6. Always wear your assigned TLD or film badge when using the gauge.
7. Never wear another person's film badge or TLD.
8. Never store your film badge or TLD near the gauge.
9. Always keep unauthorized persons away from the area where the gauge is to be used.
10. Always maintain constant surveillance and immediate control of the gauge when it is not in storage or secured in the transport vehicle.
11. Ensure gauge and operator are visible to heavy equipment operators.
12. Never look under the gauge when the source rod is being lowered into the ground.

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13. When the gauge is not in use at a temporary job site, place the gauge in a secured storage location (locked in storage box in garage)
14. Return the gauge to the proper storage location at the end of the work shift.
15. When returning the gauge to the permanent storage facility, so indicate in the source log book.
16. When using the equipment at a temporary jobsite with no storage facility, and the operator is living in temporary lodging (hotel or motel), the gauge should be stored inside the transport vehicle in an inconspicuous manner that would deter theft and limit the exposure to the general public
17. Pregnant Equipment Operators may declare their pregnancy to the RSO in writing.

STANDARD EMERGENCY PROCEDURES

If the source fails to return to the shielded position or if any other emergency or unusual situation arises (example: gauge struck by a moving vehicle or is a vehicle involved in an accident), perform the following:

1. Immediately secure the area around the gauge. (an area 15' in diameter should limit exposure to the general public) If the source has been separated from the unit, secure the area around the source as above.
2. Prevent unauthorized personal from entering the secured area.
3. If a vehicle or heavy equipment is involved, detain the equipment until it is determined there is no contamination present.
4. Notify licensee management of the situation, call company personal in the order listed below.
 1. Steve Robinette, work # 804-791-4480, home # 804-836-0723
 2. James Ricketts, work # 804-791-4480, home # 804-822-5942
 3. Peggy Purganson work # 804-791-4480, home # 804-793-9861
5. Follow the directions provided by the person contacted in step 4.
6. Licensee management must arrange for a survey to be conducted as soon as possible by a knowledgeable person using appropriate radiation detection instrumentation. Make necessary notifications to local authorities; notify the NRC or Agreement as appropriate. Consider the timeliness of reports to the NRC, review the reporting requirements, which are found in 10 CFR 20.2201-2203 and 10 CFR 30.50.

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An Audit will be conducted annually. Steve Robinette (RSO) will conduct the audit. The scope of the audit will meet the minimum criteria detailed in Appendix 1 of NRC Draft Regulatory Guide DG-0008. Records of the audit will be maintained for 3 years.

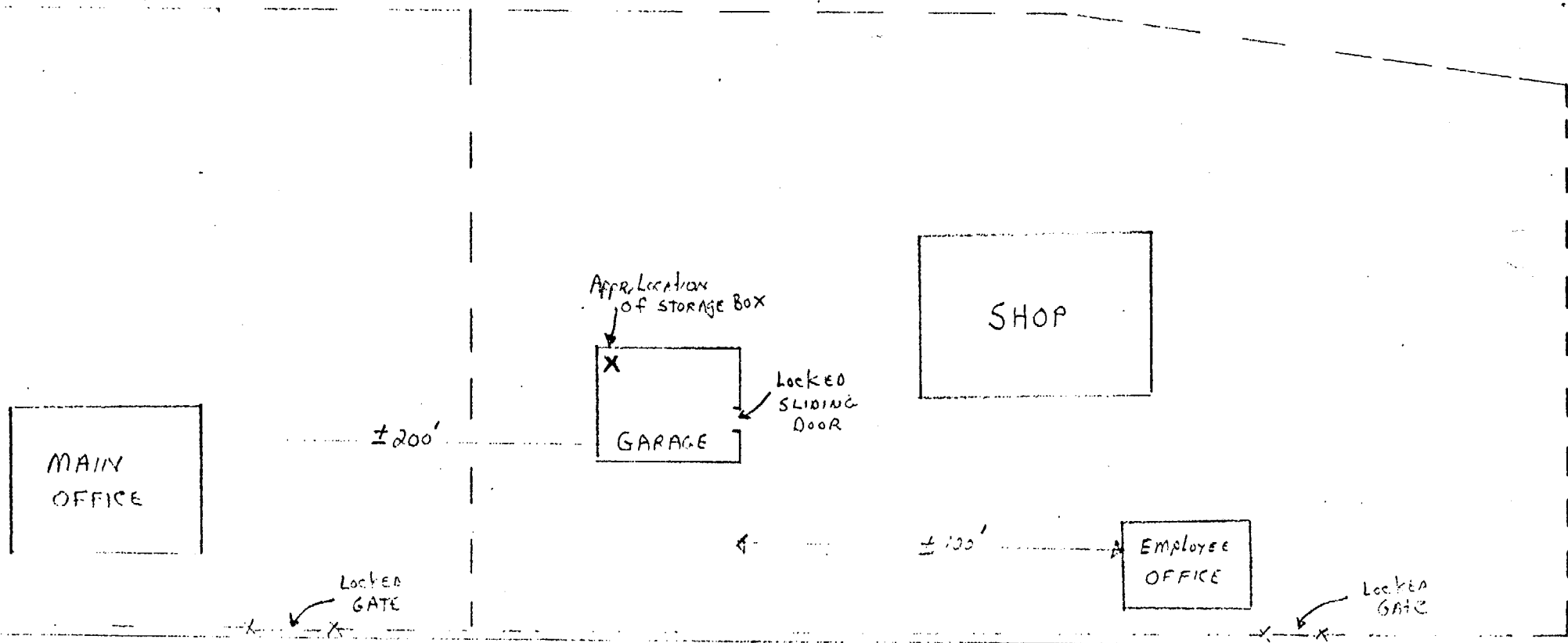
Financial Assurance- We will confine our possession of licensed material to quantities such that we will not exceed the applicable limits in 10 CFR 30.35(d)

Recordkeeping- Records will be maintained, detailing any instance related to leaking sources, spills or contamination important to decommissioning. Records will be kept at Thompson's Inc., 250 Bryant Ave. Danville, VA. 24540.

11. Waste Management:

Disposal will be by transfer of the radioactive material to a person who is specifically licensed to receive and possess it.

LOCATION OF STORAGE BOX



TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

STEVEN V. ROBINETTE

of

APAC VIRGINIA INC

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

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

CERTIFICATE #: 053196

FRANK D. JONES

INSTRUCTOR

Frank D. Jones

5/07/92

DATE

WILLIAM F. TROXLER

PRESIDENT