

5725 Kanawha Trpk

FORM NRC-313 I (1-79) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION		1. APPLICATION FOR: (Check and/or complete as appropriate) 03120	
APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL				X	a. NEW LICENSE
See attached instructions for details.					b. AMENDMENT TO: LICENSE NUMBER 30-11796
Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.					c. RENEWAL OF: LICENSE NUMBER h & h 19499
2. APPLICANT'S NAME (Institution, firm, person, etc.) G. E. Ray Construction Co., Inc. TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 304-768-8836		3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION O. Robert Coontz TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 304-768-8836			
4. APPLICANT'S MAILING ADDRESS (Include Zip Code) P. O. Box 9335 South Charleston, W. Va. 25309		5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code) At the address listed in Item #4 and at temporary jobsites throughout the U.S. anywhere the U.S.N.R.C. maintains jurisdiction over byproduct materials.			
(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)					
6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL (See Items 16 and 17 for required training and experience of each individual named below)					
FULL NAME		RECEIVED BY LFMB		TITLE	
a.	Opha Robert Coontz	Date 8/13/80	Operations Engineer		
b.	Lawrence Philip DeRoo	Log Aug - 2 NK	Project Superintendent		
c.		By 4			
7. RADIATION PROTECTION OFFICER		Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.			
O. Robert Coontz		Orig. To Action Compl. 8/14/80			
8. LICENSED MATERIAL					
L I N E NO.	ELEMENT AND MASS NUMBER A	CHEMICAL AND/OR PHYSICAL FORM B	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) C	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D	
(1)	Cesium 137	Sealed Source	As per Troxler drawing #A-102112	No single source to exceed 9 mCi	
(2)	Americium 241: Beryllium	Sealed Source	As per Troxler drawing #A-102451	No single source to exceed 4 mCi \pm 10%	
(3)					
(4)					
DESCRIBE USE OF LICENSED MATERIAL E					
(1)	For use in a Troxler Model 3411B Surface Moisture Density Gauge to				
(2)	measure properties of construction materials.				
(3)					
(4)	10 pp. 8009090135 h				

Applicant...
Check No. R 002196...
Amount... \$116.32
Type... Application
Date Checked... 8/13/80
Received By... Jackson

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9. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	Surface Moisture Density Gauge	Troxler Electronics	3411B
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT A	MANUFACTURER'S NAME B	MODEL NUMBER C	NUMBER AVAILABLE D	RADIATION DETECTED (alpha, beta, gamma, neutron) E	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F
(1)	None					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

Not Applicable

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
<input checked="" type="checkbox"/> (1) FILM BADGE Type B-1, Badge	R. S. Landaver Jr. and Company	<input checked="" type="checkbox"/> MONTHLY
<input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)	Glenwood Science Park	<input type="checkbox"/> QUARTERLY
<input type="checkbox"/> (3) OTHER (Specify):	Glenwood, Illinois 60425	<input type="checkbox"/> OTHER (Specify):
	312 - 755-7000	

13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).

- ☐ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.
- ☒ b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC.
- ☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
- ☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE

Source(s) will be returned to the manufacturer.

INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.
16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.
 - a. Principles and practices of radiation protection.
 - b. Radioactivity measurement standardization and monitoring techniques and instruments.
 - c. Mathematics and calculations basic to the use and measurement of radioactivity.
 - d. Biological effects of radiation.
17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our 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.

a. LICENSE FEE REQUIRED
(See Section 170.31, 10 CFR 170)

\$110.00

b. CERTIFYING OFFICIAL (Signature)

James Ahern

c. NAME (Type or print)

James Ahern

(1) LICENSE FEE CATEGORY: 170.31.3.L

d. TITLE

Vice President

(2) LICENSE FEE ENCLOSED: \$ 110.00

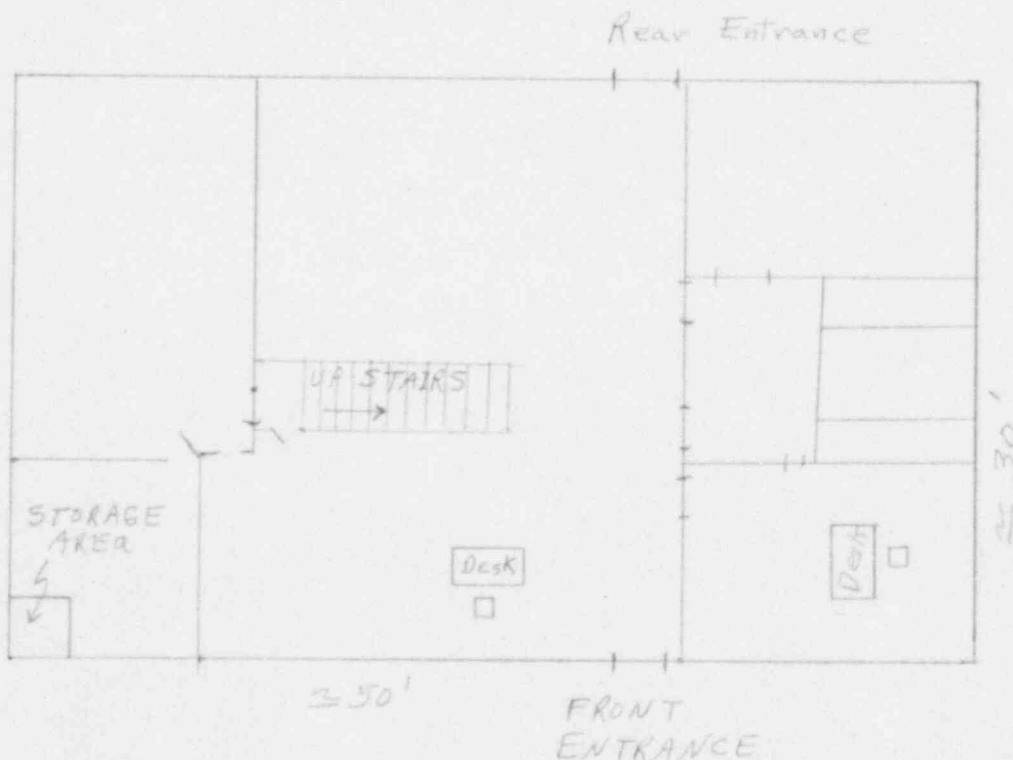
e. DATE

August 1, 1980

13.) Facilities and Equipment

The Troxler Model No. 3411B Moisture-Density Gauge will be stored in an existing structure. This structure is a two story wood frame dwelling. The Moisture-Density Gauge will be kept on the first floor in a back room of the structure as shown on the sketch below. The door to this room will be kept locked at all times when the gauge is being stored. All remaining doors will be locked at the close of each work day.

The closest any personnel will be working to the gauge will be 23 feet with a wall in between.



15.) Radiation Protection Program

It is the responsibility of the Radiation Protection Officer to insure that the Radiation Protection Diagram, listed below, is maintained.

A.) Handling Procedures

- 1) Insure that no one operates the nuclear gauge unless authorized to do so.
- 2) Keep the radioactive source in the stored position when not in use.
- 3) All personnel operating or transporting the nuclear gauge must wear a film badge.
- 4) Never expose employees to the bare source without sufficient reason for justification of the additional dose.
- 5) People, who are unauthorized, shall be kept at a minimum of fifteen (15) feet from an operating gauge. Take all precautions necessary to prevent the general public from being exposed.
- 6) Maintain security of the instrument at all times. The source shall be in a stored or locked position when not in use and shall be kept in a locked vehicle when being transported. When stored in the designated storage area, it shall be secured by a lock.
- 7) The standard operating procedures will be followed. Report any actions that appear as misuse or unsafe conduct by the operator.
- 8) Perform the leak test on the nuclear gauge at the proper intervals as required by the Nuclear Regulatory Commission. The leak test will be performed by a qualified individual under the procedures as outlined by Troxler. The leak test kit used will be a Troxler Model No. 3880.
 - a) Instruct all operators that any questions that may arise concerning the use of the nuclear gauge should be directed to the Radiation Protection Officer.

B.) Security

All storage containers shall be physically secured to prevent tampering or removal by unauthorized personnel. Locks will be maintained at all times on the instrument to prevent accidental exposure of the source. Only authorized personnel shall operate the nuclear gauge.

C.) Personnel Maintaining

Only authorized peoples shall be permitted to use the nuclear gauge. All users must wear a film badge or other types of dosimetry.

D.) Records and Reports

- 1) Conduct quarterly an inventory to account for all sealed sources received and processed under the license. Maintain a record of this inventory on file for inspection.
- 2) Test each sealed source for a leak at the intervals required by the Nuclear Regulatory Commission. If the source should be transferred in the absence of a leak test certificate, the source shall not be put into use until leak tested.
- 3) Maintain the records from the film badge service on file for inspection.
- 4) Whenever an individual named on the radioactive material license terminates employment, a record of his total received dosage must be made available to the individual.

E.) Incidents

- 1) Report immediately any theft or loss of licensed material by telephone or telegram to the appropriate agency. A written report must be filed within thirty (30) days, detailing the description of the radioactive source, circumstances of the loss, statement of disposition, possible radiation exposures or hazards, actions taken to recover the source, and procedures that will be implemented to prevent a reoccurrence of the loss or theft.
- 2) In the event that an operator may be overexposed, as stated in No. 10, Part 20 of the Nuclear Regulatory Commission, report immediately the circumstances and possible injuries.

F.) Handling and Emergency Procedures

- 1) No personnel may transport or use the nuclear gauge unless authorized to do so by the Radiation Protection Officer.
- 2) Each operator must demonstrate their ability to correctly and safely operate the nuclear gauge.
- 3) The nuclear gauge will be transported to its regular storage area at the end of field use.
- 4) In the event of physical damage to a gauge, a fifteen (15) foot radius exclusion area will be maintained until the extent of source damage is determined. If a vehicle is involved, the vehicle must be stopped until the extent of damage is known. If inspection reveals that the source has been damaged or the weld was broken the appropriate authorities and the manufacturer will be notified. The instrument will be moved by using a long handled instrument and placed in a suitable container such as a metal drum. After the source is removed, the area will be checked for possible contamination. Disposition will be arranged after a leak test has been performed to determine the integrity of the source before shipment back to the manufacturer.

5) The following authorities must be notified in the event of an accident or theft.

- a) Company Radiation Protection Officer
- b) Nuclear Regulatory Commission - Regional Office
- c) State Health Department
- d) Local Authorities
- e) Troxler Electronic Laboratories

G.) Transport by Private Motor Vehicle

- 1) The equipment, in its containers, may be transported by motor vehicle under the yellow II label without placarding the vehicle. The lock shall be in place and the container placed in a locked portion of the vehicle. The container shall not be stored less than thirty (30) centimeters from passengers in the vehicle.

H.) Disposal

If the instrument is damaged beyond repair, the source shall be transferred to an approved burial facility or returned to the manufacturer.

16. Formal Training In Radiation Safety

- a) Opha Robert Coontz attended the Troxler Training Course held on July 9 & 10, 1980 at Research Triangle Park, North Carolina.
- b) Lawrence Philip DeRoo will be attending the next Troxler Training Course given in this area.

17. Experience

- a) Opha Robert Coontz attended the Troxler Training Course held on July 9 & 10, 1980 at Research Triangle Park, North Carolina.
- b) Lawrence Philip DeRoo will be attending the next Troxler Training Course given in this area.

The certificate of completion of the Troxler Training Course for Opha Robert Coontz is attached and the certificate for Lawrence Philip DeRoo will be forwarded to the Nuclear Regulatory Commission for proof of this attendance.

18.

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

ROBERT COONTZ

of

G.E. RAY CONSTRUCTION CO., 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 | |


INSTRUCTOR

7/9-10/80
DATE

W. F. TROXLER
PRESIDENT