

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

See attached instructions for details.

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.

a. NEW LICENSE

b. AMENDMENT TO:
LICENSE NUMBER

c. RENEWAL OF:
LICENSE NUMBER

X

47-17451-01

2. APPLICANT'S NAME (Institution, firm, person, etc.)

J. F. Allen Company

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

(304) 623-3336

3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION

Michael D. Griffith

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

(304) 623-3336

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)

P. O. Box 49
Clarksburg, WV 26301

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED
(Include Zip Code)

Temporary Job Sites of the
Applicant in West Virginia

(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

TITLE

a. Edward R. Paugh

Radiation Protection Officer

b. Delbert E. Leatherman

Superintendent

c. Michael D. Griffith

Vice President

7. RADIATION PROTECTION OFFICER

Edward R. Paugh

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.

8. LICENSED MATERIAL

L I N E NO.	ELEMENT AND MASS NUMBER	A. CHEMICAL AND/OR PHYSICAL FORM		NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source)	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
		B	C		
(1)	Cesium 137	Sealed Source	Troxler Laboratory #A-102112	8mCi ± 10%/Source	
(2)	Americian 241	Sealed Source	Troxler Laboratory #A-102451	40mCi ± 10%/Source	
(3)	8801280057 870616 REG2 LIC30				
(4)	47-17451-01	PDR			

DESCRIBE USE OF LICENSED MATERIAL
E

- (1) For use in Troxler 3411B moisture/density gauges to be used on
- (2) construction jobs in the State of West Virginia. License issued
- (3) for a maximum of five gauges
- (4)

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REGULATION AND ENFORCEMENT

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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 Gauges	Troxler	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)	N/A					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY N/A	<input type="checkbox"/> b. CALIBRATED BY APPLICANT Attach a separate sheet describing method, frequency and standards used for calibrating instruments. N/A
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12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
<input type="checkbox"/> (1) FILM BADGE <input checked="" type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____ _____	R. S. Landauer, Jr. & Co. Division of Tech/Ops, Inc. Glenwood Science Park Glenwood, Illinois 60425	<input type="checkbox"/> MONTHLY <input type="checkbox"/> QUARTERLY <input checked="" type="checkbox"/> OTHER (Specify): <u>Two Weeks</u>

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
N/A
- 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 will be returned to 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:

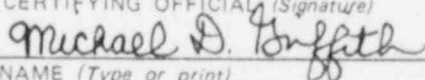
15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, 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

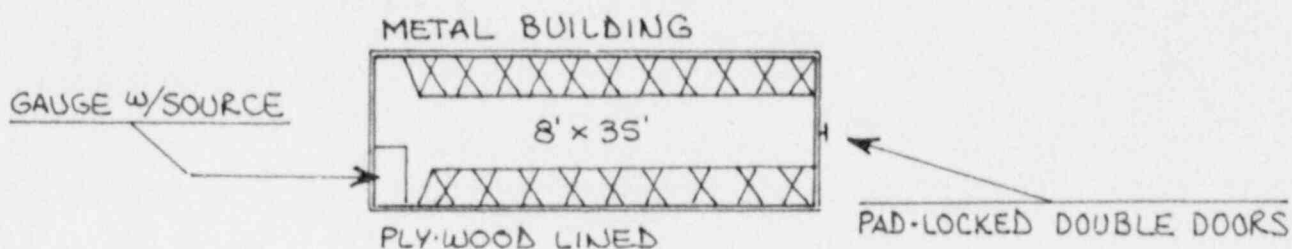
(This item must be completed by applicant)

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.

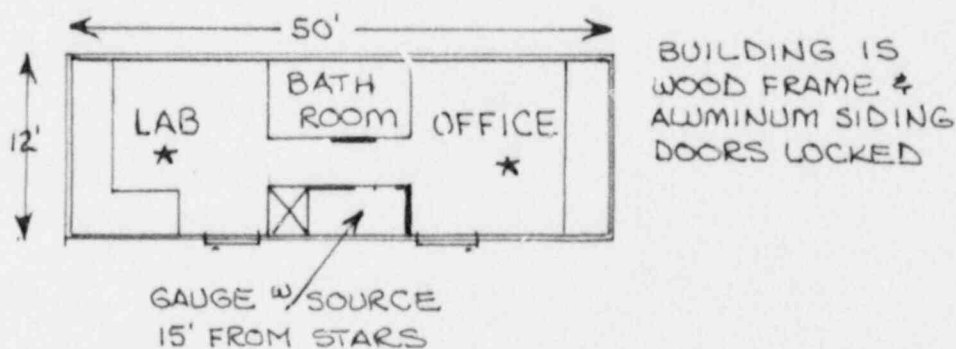
WARNING.—18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

a. LICENSE FEE REQUIRED (See Section 170.31, 10 CFR 170) \$110.00	b. CERTIFYING OFFICIAL (Signature) 
(1) LICENSE FEE CATEGORY: 0070.31.3.L	c. NAME (Type or print) Michael D. Griffith
(2) LICENSE FEE ENCLOSED: \$110.00	d. TITLE Vice President e. DATE February 10, 1982

- 13a. When on the project, but not in use (nights & holidays) the gauge(s) will be locked in the "Safe" position in the ABS shipping case and locked in the storage building. (See sketch below)



When not on the project and not in use, the gauge(s) will be stored at the Lorentz, WV, sub-office. This office/lab is occupied only intermittently and the gauges would be located 15' (fifteen feet) from normal work areas. (See sketch below)



*OCCUPIED INTERMITTENTLY

15. Attached herewith.
16. Training certificates attached.
17. All three men have five years actual field experience in operation, maintenance and safety procedures to be observed-all with this company. All three are certified by the West Virginia Department of Highways in gauge use and operations.

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

EDWARD PAUGH

of

J.F. ALLEN COMPANY

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 | |

Harvey Dunbar
INSTRUCTOR

2/3-4/77
DATE

William F. Troxler
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

DELBERT LEATHERMAN

of

J.F. ALLEN COMPANY

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. |
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Gauge Operation

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

Harvey Dunbar
INSTRUCTOR

2/3-4/77
DATE

William F. Troxler
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

MICHAEL D. GRIFFITH

of

J.F. ALLEN COMPANY

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

Gauge Operation

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

Harvey Dumbley
INSTRUCTOR

2/3-4/77
DATE

William F. Troxler
PRESIDENT

J. F. ALLEN COMPANY-RADIATION PROTECTION PROGRAM

PART A. Handling Procedures

Operators of the gauge(s) will observe the following:

1. No one shall operate or attempt to operate an instrument unless they have been authorized to do so.
2. Keep the source in the "Safe" or stored position when not in use.
3. Wear a Film Badge or TLD when using or transporting an instrument.
4. While exposure dose levels are well within limits for radiation, never expose yourself to the bare source without sufficient reason or justification of the additional dose.
5. Keep all unauthorized persons out of the operating area. A suggested distance is 5 meters or 15 feet. The general public must not be unnecessarily exposed to radiation.
6. Maintain security of an instrument at all times. The source lock should be in place when not in use and the instrument should be kept in a locked vehicle when transported. When stored, the area should be locked. Not only is it an expensive piece of equipment but, if stolen, could be abandoned under conditions which could be a hazard to the general public.
7. Report any procedures or conditions you feel are unsafe.
8. Insure that the gauge has had leak test measurements at the proper intervals as required. (6 months)
9. If you have any doubts about use of the instrument, Ask. Your Radiological Safety Officer either has the answer or can obtain one.

PART B. Security

Regulations require that locks be maintained on radiographic equipment to prevent accidental exposure of a sealed source when not under the direct supervision of approved personnel. In addition, storage containers shall be physically secured to prevent tampering or removal by unauthorized personnel.

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PART C. Personnel Monitoring

The J. F. Allen Company will not permit any person to use this equipment unless at all times the user is in the possession of a film badge or TLD. Film badge/TLD reports will be maintained for inspection.

PART D. Records and Reports

1. The R.P.O. will conduct a quarterly physical inventory to account for all sealed sources received and possessed under the license. The record will be maintained for inspection.
2. The licensee will have all sources leak tested at intervals not to exceed six months. In the absence of a certificate, the source will not be put into use until tested.
3. Reports from film badge/TLD service will be maintained for inspection.
4. When an individual terminates employment with J. F. Allen Company a record of his total received dose will be made available.

PART E. Incidents

1. The licensee will report any theft or loss of licensed material by telephone or telegram to the U.S.N.R.C. and the State Health Department. Within 30 days after the loss, a written report will be filed giving detailed description of the source, circumstances of the loss, statement of disposition, possible radiation exposures or hazard, actions taken to recover the source and procedures which will be implemented to prevent a recurrence of the loss or theft.
2. The licensee will report any overexposure of operators which exceeds the limits given in 10 CFR part 20, detailing circumstances of the exposure and possible injury.

PART F. Handling and Emergency Procedures

No personnel may transport or use the nuclear gauges unless the individual has been approved by the Radiological Protection Officer and the requirements of these procedures are met.

1. Each user must demonstrate their ability to correctly and safely use the nuclear gauge.

2. At the termination of each field use, the nuclear gauge will be transferred to its regular storage area, either at the project storage building or at the Sub-Office.
3. In the event of physical damage to the gauge, a six (6) feet radius exclusion area will be maintained until the extent of source damage (if any) is determined. If a vehicle is involved, it will be stopped and remain stopped until the extent of contamination hazard (if any) is determined. If visual examination of the instrument and source rod indicated damage to the source rod tip, including fracture of the tip or weld, we will notify the Department of Health and Troxler Electronic Laboratories, Inc. and keep personnel clear of the instrument. We will remove the instrument from the site by using a shovel or other long handled instrument and place it in a suitable container such as a metal drum. We will make provisions to have the site surveyed by W.V.D.O.H. after the removal of the instrument to determine if a breakage had occurred. Disposition by the factory, as covered later, will be arranged after a leak test has been performed to determine the integrity of the source before transport back to the factory.
4. Immediate telephone notification will be made to the following in the event of accident (3 above) or the loss of a sealed source, whether accidental or due to theft.
 - A. Company Radiological Protection Officer
 - B. NRC Office
 - C. State Health Department
Radiological protection division
 - D. Local Authorities
Fire Dept., Sheriff, local police, state police, if necessary.
 - E. Troxler Electronic Laboratories

PART G. Transport by Company Motor Vehicle

Our gauge(s), in its/their container(s), may be transported by motor vehicle under the "YELLOW II" label without placarding the vehicle as required by 49 CFR 177.823.

The source rod lock will be in place and the container secured from movement and placed in a portion of the vehicle which can be locked. When not in transit the instrument will be stored in a secured area.

Since the shipping case has a Transport Index of 0.1 or greater it may not be stored less than 30 centimeters from passengers per 49 CFR 174.586. It also should not be stored for more than 8 hours at less than 1 meter from undeveloped film.