

34-20119-01  
032-17985

APPLICATION FOR BYPRODUCT MATERIAL LICENSE  
INDUSTRIAL

- X  a. NEW LICENSE  
 b. AMENDMENT TO:  
LICENSE NUMBER  
 c. RENEWAL OF:  
LICENSE NUMBER

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.

2. APPLICANT'S NAME (Institution, firm, person, etc.)  
Trojan Asphalt, Inc.  
TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION  
513-335-8311

3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION  
Richard A. Grigg  
TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION  
513-335-8311 009

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)  
615 East Dakota St.  
P.O. Box 413  
Troy, Ohio 45373

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code)  
At job sites temporary in Miami and Montgomery Counties in Ohio and Wayne County in Indiana

(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. | Richard A. Grigg             | Vice President & Gen. Mgr. |
| b. | Greg Barnes                  | Laborer                    |
| c. | Dave Painter<br>Dave Corbett | Laborer<br>Operator        |



7. RADIATION PROTECTION OFFICER  
Richard A. Grigg

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

| LINE NO. | ELEMENT AND MASS NUMBER | CHEMICAL AND/OR PHYSICAL FORM | NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) | MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME |   |
|----------|-------------------------|-------------------------------|--|---|---|
|          |                         |                               |  |   |   |
| (1)      | CS 137                  | Sealed Course                 | As per Troxler drawing #A-102112                         | No single source to exceed 9mCi.  |   |
| (2)      | Am241:Be                | Sealed Course                 | As per Troxler drawing #A-102451                         | No single source to exceed 40mCi.   |   |
| (3)      |                         |                               |  |   | RECEIVED BY LFWD                            |
| (4)      |                         |                               |  |   | Date: 3/25/81 III<br>MARCH 26 1981<br>BROWN |

DESCRIBE USE OF LICENSED MATERIAL

(1) For use in a Troxler Model 3411-B Surface Moisture  
(2) Density Gauge to measure properties of construction materials  
(3) 13522 110(34)  
Application  
3/25/81  
(4) BROWN

**9. STORAGE OF SEALED SOURCES**

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

**10. RADIATION DETECTION INSTRUMENTS**

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

**11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10**

|   |   |
|---|---|
| <input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY<br>NAME, ADDRESS, AND FREQUENCY<br><br>Not applicable | <input type="checkbox"/> b. CALIBRATED BY APPLICANT<br>Attach a separate sheet describing method, frequency and standards used for calibrating instruments. |
|---|---|

**12. PERSONNEL MONITORING DEVICES**

| TYPE<br><i>(Check all or complete as appropriate.)</i>  | SUPPLIER<br><i>(Service Company)</i>  | EXCHANGE FREQUENCY  |
|---|---|---|
| A   | B   | C   |
| <input checked="" type="checkbox"/> (1) FILM BADGE<br><br><input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)<br><br><input type="checkbox"/> (3) OTHER <i>(Specify):</i> _____<br>_____<br>_____ | R. S. Landauer Jr. & Co.<br>Glenwood Science Park<br>Glenwood, Illinois 60425<br><br>312 / 775-7000 | <input checked="" type="checkbox"/> MONTHLY<br><br><input type="checkbox"/> QUARTERLY<br><br><input type="checkbox"/> OTHER <i>(Specify):</i> _____<br>_____<br>_____ |

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

|   |
|---|
| <input type="checkbox"/> a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS <i>(Include filtration, if any), ETC.</i><br><input checked="" type="checkbox"/> b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING <i>(fixed and/or temporary), ETC.</i><br><input type="checkbox"/> c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.<br><input type="checkbox"/> d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC. |
|---|

**14. WASTE DISPOSAL**

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED  
 None

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 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:

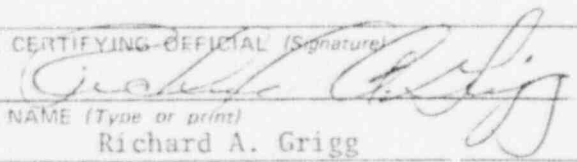
15. **RADIATION PROTECTION PROGRAM.** Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed,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

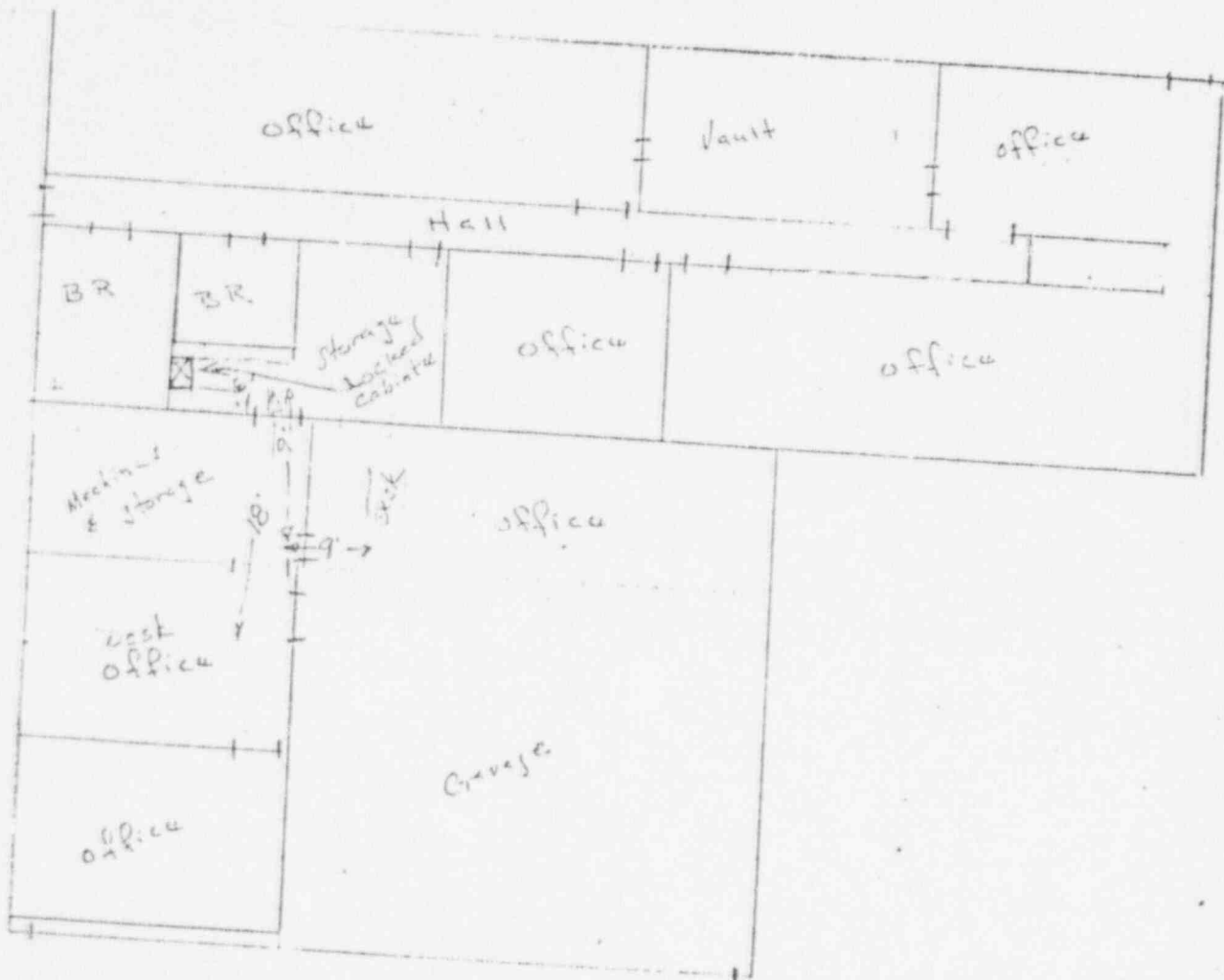
*(This item must be completed by applicant)*

*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<br><i>(See Section 170.31, 10 CFR 170)</i><br><br>170.31.3.L | b. CERTIFYING OFFICIAL (Signature)<br><br>c. NAME (Type or print)<br>Richard A. Grigg |
| (1) LICENSE FEE CATEGORY: Application-<br>New License                                | d. TITLE<br>Radiation Protection Officer  |
| (2) LICENSE FEE ENCLOSED: \$ 110.00  | e. DATE<br>March 16, 1981   |

13. Facilities and Equipment



A locked steel cabinet will be placed in storage area shown above and the R.P. Officer will have the only key. Also instrument will be returned to storage from job sites each day. The storage cabinet is 24 feet away from nearest employee work area.

POOR ORIGINAL

Control No. 04563

MAR 18 1981

15. Radiation Protection Program

A. Duties and Responsibilities of the Radiation Protection Officer:

1. Supervise the safe handling and use of the gauge
2. Assure compliance with regulations and requirements of Title 10 CFR Parts 19, 20 and any applicable STATE and U.S. DOE rules and regulations
3. Assure all by product materials possessed under this license are in conformity to materials as listed on the license.
4. Assure all operators of the device are licensed and have completed acceptable training courses.
5. Assure all users wear personnel monitoring as required while operating gauge.
6. Assure the gauge is secured from unauthorized personnel and removal at all times.
7. Will be available to give assistance in case of emergency and insure all proper authorities are promptly notified in the event of an accident.
8. Assure that the terms and conditions of the license are met as follows
  - a.) Periodic leak tests are conducted.
  - b.) Assure all records are kept and reviewed periodically for compliance with regulations and requirements which include; source certificates, leak test reports, personnel exposure reports and records of transfer of radioactive materials.

B. Handling Procedures:

1. No one shall operate, attempt to operate, temper with or transport the instrument without prior approved authorization and schooling.
2. The instrument shall be kept in its case and locked secured in the storage room, when not in use on the jobsite.
3. The film badge or other approved dose measurement device shall be worn at all times whiles transporting or using the instrument.
4. Dose levels are within safe radiation work limits, however never expose yourself needless to the bare source without justifiable reason.
5. Keep all unauthorized persons out of the operating area. "A minimum distance of 15 feet." The general public must not be unnecessarily exposed to radiation.
6. The gauge shall be kept in the case and locked out of sight when transporting to, and when not in use at the jobsite to prevent tampering by unauthorized personnel.
7. Check records that "Leak Test" have been conducted at proper intervals per the Radioactive Materials License prior to handling.

Control No. 04563

MAR 18 1981

8. If there are any questions or doubts about the instrument, check with the Radiological Safety Officer.

C. Security:

1. Instrument is to be kept locked when not in use by authorized personnel. Storage case and cabinet shall be periodically checked in insure of no unauthorized tampering has occurred.

D. Personnel Monitoring:

1. No person shall use the gauge without a film badge or approved dosimetry.

E. Records and Reports:

1. The instrument shall be leak tested at prescribed intervals per license and recorded.
2. Reports from the dosimetry service shall be maintained for inspection.
3. Any individual terminating his employment, shall be furnished a record of his dose received if requested.

F. Incidents:

1. Immediate telephone notification shall be made to the following if the gauge becomes damaged or lost accidentally or through theft.
  - a.) Company Radiological Safety Officer
  - b.) U.S. NRC Regional Office.
  - c.) State Health Department  
Radiological Protection Division.
  - d.) Local Authorities  
Fire, Police, State Highway Patrol, Airport Officials if applicable
  - e.) Troxler Electronic Laboratories, if necessary
2. Exposure exceeding limits outlined in 10 CFR Part 20, or the applicable state regulation to any personnel shall be reported in detail giving circumstances of exposure and possible injury.

G. Emergency Procedures:

1. If an instrument becomes damaged and area of atleast 15 foot radius, it shall immediately be cordoned off and maintained until the extent of damage can be determined. If in a vehicle it shall remain stopped and the above procedure implemented.
2. In the event the rod containing the source is separated from the gauge, it will be picked up with tongs and inserted into the top of the instrument and secured with tape for shielding.

H. Transport by private Motor Vehicle:

1. This instrument will be transported under the "YELLOW II" label as required by 49 CFR 177.823.
2. When transporting the instrument it will be stored at least 1 foot from any passengers or driver as per 40 CFR 174.586. Also, it will not be stored for a period greater than 1 hour within 3 feet of undeveloped film.

I. Leak Test:

1. Tests will be performed using Troxler Model 3880 Leak Test Kit.

16. Formal Training In Radiation Safety:

1. Troxler Electronic Laboratories Inc. standard training course. \*

17. Experience:

1. Troxler Electronic Laboratories Inc. standard training course. \*

|                    |                                   |
|--------------------|-----------------------------------|
| * Richard A. Grigg | R.P.O.                            |
| Greg Barnes        | Operator                          |
| Dave Painter       | Operator                          |
| Dave Corbett       | Operator                          |
| Errol Kahoun       | Supervisor & Responsible for Test |

None of the above have had previous training. However, all will attend the Troxler Electronic Lab. and/or Bowser & Morners standard training course prior to operating the instrument. A copy of their certificates will be forwarded when courses are completed.