

BROOKS RUN

Coal Company

SUBSIDIARY OF ANR COAL COMPANY

GENERAL OFFICE: P.O. BOX 1871, ROANOKE, VIRGINIA 24008 (703) 342-1801
OPERATIONS: P.O. BOX 303, BIRCH RIVER, WEST VIRGINIA 26610 (304) 649-5161
CERTIFIED MAIL 0432118

November 4, 1981

Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety, and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: DIVISION OF FUEL CYCLE AND MATERIAL SAFETY
OFFICE OF NUCLEAR MATERIAL SAFETY
AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION

Dear Sir:

Brooks Run Coal Company has scheduled with Troxler Electronics Laboratories a training course for the certification and use of the applied for radiation source equipment as described in our application for by-product license. The course instruction shall take place November 18, 1981 and be conducted by G. Kenneth Brown, Training Engineer, Troxler Electronics Laboratories. Immediately following the completion of the course, the proper training certifications will follow and be a part of the attached by-product license.

If you have any questions as to the application, certification or training course, please feel free to contact me at 1-304-649-5161. The expediate granting of the by-product license would be greatly appreciated and it is hoped that this early filing date will be of assistance.

Sincerely,

James W. Copley, Jr.
James W. Copley, Jr., P.E.
Senior Mining Engineer
BROOKS RUN COAL COMPANY

JWC/pkf

Enclosures: (2) Application and
Map

Applicant	1094
Check No.	1110/3L
Amount/Fee	APPLICATION
Type of Fee	
Date Check Recd.	11/13/81
Received By	Brown

RECEIVED BY LFMB	
Date	11/13/81
Log	DOV. PG 2 N.L.
By	Brown
Orig. To	
Action Compl.	11/16/81 m

8703300517 861124
REG2 LIC30
47-19904-01
PDR

COPIES SENT TO OFF. OF
INSPECTION AND ENFORCEMENT

09491

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	3411 B
(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

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

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 Suggested badge is Type G. <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____	R.S. Landauer Jr. & Company Glenwood Science Park Glenwood, Illinois 60425 312/755-7000	<input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> OTHER (Specify): _____

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. SEE ATTACHED DRAWINGS.
☐ 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.

This application is for a sealed source which will be returned to manufacturer in lieu of any waste disposal actions.

FORM NRC-313 I (3-80) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION	
APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL		1. APPLICATION FOR: <i>(Check and/or complete as appropriate)</i> <div style="font-size: 1.5em; font-weight: bold; text-align: center;">30-19504</div>	
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.		X	a. NEW LICENSE b. AMENDMENT TO: LICENSE NUMBER <div style="font-size: 1.2em; font-weight: bold;">03120</div> c. RENEWAL OF: LICENSE NUMBER <div style="font-size: 1.2em; font-weight: bold;">19904</div>
2. APPLICANT'S NAME <i>(Institution, firm, person, etc.)</i> Brooks Run Coal Company TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 304/649-5161	3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION Senior Mining James W. Copley, Jr., P.E., Engineer TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 304/649-5161		
4. APPLICANT'S MAILING ADDRESS <i>(Include Zip Code)</i> <i>(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)</i> P.O. Box 303 Birch River, W.V. 26610	5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED <i>(Include Zip Code)</i> At the address listed in Item #4, and at temporary jobsites throughout the U.S. anywhere in the U.S.N.R.C. maintains jurisdiction over by product 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 <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>			
FULL NAME		TITLE	
a. Only those personnel who as a minimum have completed the manufacturer's training or equivalent, been instructed in the organization's operating and emergency procedures, demonstrated their knowledge in safe use of the equipment, and have been designated by the radiation protection officer, will be allowed to operate the equipment.			
7. RADIATION PROTECTION OFFICER James W. Copley, Jr.		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 B	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i> 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)	Cs 137	Sealed Source	As per Troxler drawing no. A-102112
(2)	Am. 241 : Be	Sealed Source	As per Troxler drawing no. A-102451
(3)			
(4)			
DESCRIBE USE OF LICENSED MATERIAL E			
(1)	For use in a Troxler Model 3411 B Surface Moisture Density Guage to measure		
(2)	properties of construction materials.		
(3)			
(4)			

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:

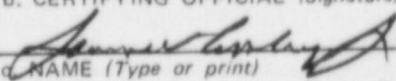
15. **RADIATION PROTECTION PROGRAM.** Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures *(if needed)*, day-to-day general safety instruction to be followed, 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 <i>(See Section 170.31, 10 CFR 170)</i> <div style="text-align: center; font-size: 1.2em;">\$110.00</div>	b. CERTIFYING OFFICIAL <i>(Signature)</i>  c. NAME <i>(Type or print)</i> James W. Copley, Jr., P.E.
(1) LICENSE FEE CATEGORY: Application-New License	d. TITLE Senior Mining Engineer
(2) LICENSE FEE ENCLOSED: \$ 110.00	e. DATE October 21, 1981

15. RADIATION PROTECTION OFFICER RESPONSIBILITIES ARE:

- A) Coordinate the safe use of the gauges.
- B) Assure compliance with the requirements of Title 10 CFR Parts 19, 20, or applicable state regulations, and all applicable US DOT regulations.
- C) Assure byproduct materials possessed under the license are in conformity to materials listed on the license.
- D) Assure that use of devices (particularly in the field) is only by persons names as users under the license or persons who have completed acceptable training.
- E) Assure all users wear personnel monitoring (when required) while using gauges.
- F) Assure gauges are properly secured against unauthorized removal at all times.
- G) Serve as point of contact and give assistance in case of emergency to insure that all proper authorities are notified promptly in case of accidents.
- G) Assure that terms and conditions of the license are met such as:
 - 1) Periodic leak tests are performed.
 - 2) All required records are kept and reviewed periodically for compliance with regulations: these include source certificates, leak test reports, personnel exposure reports, and records of transfer of radioactive materials.

15. RADIATION PROTECTION PROGRAM

Although the sources used in the equipment are small, any radioactive source is potentially hazardous. When applying for a radioactive material license, a radiation protection must be submitted outlining procedures which will be employed to minimize potential hazards. A sample program follows:

A. HANDLING PROCEDURES

1. No one shall operate, attempt to operate, or transport the instrument unless you have been authorized to do so.
2. The source shall be kept in a "safe" or stored position when not in use.
3. Wear a film badge or other dose measurement device when using or transporting the instrument (if required).
4. While exposure dose levels are well within limits for radiation workers, never expose yourself to the bare source without sufficient reason for 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. At all times the gauge shall be secured against unauthorized removal. Not only is it an expensive piece of equipment but, if stolen, could be abandoned under conditions which could be hazardous.
7. Insure that the gauge has had leak tests performed at the intervals required by the Radioactive Materials license.
8. If there are any doubts about use of the instrument, ASK. The Radiological Safety Officer either knows the answer or will obtain one.

B. SECURITY

Locks shall be maintained on the equipment to prevent accidental exposure of the sealed source when not under the direct supervision of authorized personnel. In addition, storage containers shall be physically secured to prevent tampering or removal by unauthorized personnel.

C. PERSONNEL MONITORING

If personnel monitoring is required, no person shall use equipment unless he is in possession of the appropriate form of dosimetry.

D. RECORDS AND REPORTS

1. A biannual physical inventory to account for all sealed sources received and possessed under the license shall be performed. The inventory record shall be maintained for inspection.
2. All sealed sources shall be leak tested at the interval required by the license. When transferred, in the absence of a leak test certificate, the source shall not be put into use until so tested.
3. Reports from the dosimetry service shall be maintained for inspection.
4. When an individual terminates employment, a record of his total received dose shall be made available to the employee on request.

E. INCIDENTS

1. Immediate telephone notification shall be made to the following in the event of loss of a sealed source, whether accidental or due to theft.

- A. Company Radiological Safety Officer
- B. U.S. NRC Regional Office, if applicable
- C. State Health Department
Radiological Protection Division, if applicable
- D. Local Authorities
Fire, police, or state highway patrol, if necessary
- E. Troxler Electronic Laboratories, if necessary.

Within 30 days after the loss, a written report must 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. Any exposure of operators which exceeds the limits given in 10 CFR part 20 or the agreement state regulations shall be reported detailing circumstances of the exposure and possible injury.

F. EMERGENCY PROCEDURES

1. In the event of physical damage to a gauge, an exclusion area with a radius of fifteen (15) feet around the gauge shall be maintained until the extent of source damage (if any) is determined. If a vehicle is involved, it must be stopped and remain stopped until the extent of contamination hazard (if any) is determined. If visual examination of the instrument and source indicates damage to the source, including fracture of the weld, the appropriate authorities and Troxler Electronic Laboratories, Inc. should be notified. The instrument may be removed from the site by using a shovel or other long handled instrument and place in a suitable container such as a metal drum.
2. In the event of source leakage or separation (real or suspected) of a source from its normal containment, the 15 feet exclusion area shall be maintained until the arrival of the appropriate authorities.
3. If the rod containing the source becomes separated from the gauge, the rod will be picked up using pliers or tongs and inserted into top of the instrument, thus providing shielding. The rod shall then be secured in place using tape to prevent accidental unshielding of the source.

G. TRANSPORT BY PRIVATE MOTOR VEHICLE

The equipment, in its container, may be transported by motor vehicle under the "YELLOW II" label without placarding the vehicle as required by 49 CFR 177.823.

The device shall be locked and its container placed in a portion of the vehicle which can be locked. When not in transit the equipment shall be stored in a secured area.

Since the container has a Transport Index of 0.1 or greater it may not be stored less than 30 centimeters from passengers per 40 CFR 174.586. It also shall not be stored for more than 8 hours at less than 1 meter from undeveloped film.

H. LEAK TESTS

Tests for leakage shall be performed utilizing the Troxler Model 102858 Leak Test Kit or other approved equal.

16. Troxler Electronic Laboratories, Inc. standard training course.

17. Troxler Electronic Laboratories, Inc. standard training course.