NRC Form 313 I
(12-81)
10 CFR 30

U.S. NUCLEAR REGULATORY COMMISSION

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.

1. APPLICATION FOR: *(Check and/or complete as appropriate)*

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

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

Island Creek Coal Company

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
(304) 239-2361

3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION

Danny Cox - Engineer

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION

4. APPLICANT'S MAILING ADDRESS *(Include Zip Code)*
(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)

Box 840
Holden, W. Va. 25625

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

At licensee's facilities near Holden, W. Va., and at temporary job sites of the licensee within the United States.

(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.	All those persons who have successfully	completed a training course conducted by
b.	Troxler Electronic Laboratories.	
c.		

7. RADIATION PROTECTION OFFICER

Danny Cox

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

See copy of training certificate attached

8. LICENSED MATERIAL

LINE NO.	A ELEMENT AND MASS NUMBER	B CHEMICAL AND/OR PHYSICAL FORM	C NAME OF MANUFACTURER AND MODEL NUMBER *(If Sealed Source)*	D MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME
(1)	Cesium 137	Sealed source Troxler DWG#A-102112	(Troxler Model 3401 or 3411 portable)	No single source to exceed 9 millicuries each
(2)	Americium 241:Be	Sealed source Troxler DWG#A-102451	Moisture density gauges	No single source to exceed 40 millicuries each
(3)				
(4)				

License Fee Information on Next Page 10/15/85 LCS

	E DESCRIBE USE OF LICENSED MATERIAL
(1)	The licensed material will be used in Troxler Electronic Laboratories, Inc., portable
(2)	gauges to measure moisture and surface density of soil, rock, or coal-related
(3)	material at any temporary job site of the licensee anywhere in the United States.
(4)	

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)	Source housing which is integral part of gauges.	Troxler Electronic Laboratories, Inc.	3401 or 3411
(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

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

N.A.

☐ 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
☒ (1) FILM BADGE	R. S. Landauer Jr. & Co.	☒ MONTHLY
☐ (2) THERMOLUMINESCENCE DOSIMETER (TLD)		☐ QUARTERLY
☐ (3) OTHER (Specify): _____		☐ OTHER (Specify):

13. FACILITIES AND EQUIPMENT (Check were 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.

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)*	b. CERTIFYING OFFICIAL *(Signature)* Danny Cox
	c. NAME *(Type or print)* Danny C. Cox
(1) LICENSE FEE CATEGORY:	d. TITLE Engineer
(2) LICENSE FEE ENCLOSED: $ 110.00	e. DATE 10-15-85

Island Creek Coal Company
Application for Byproduct Material License

Item 15: Radiation Protection Program

The licensed materials will be utilized properly, following safe procedures as per training provided by Troxler Electronic Laboratories. Each user will be provided with a radiation detection badge, as supplied by R. S. Landauer, Inc.

The gauge(s), when not in use or transit will be stored in a secure location, as depicted on the attached drawing.

When transported, the gauging device will be fully secured within the transportation vehicle and away from the passenger compartment. Transportation activities will be carried out in accordance with the requirements of 10 CFR 71 and Department of Transportation regulations.

When not in use at temporary job sites, the gauging device will be locked in the transportation vehicle.

All cases of accidents involving damage or loss of the gauging device will be reported to Stephen C. Keen, (304) 742-5501, who will, in turn, notify local police, State personnel, and the NRC and take all necessary steps to prevent danger to the public.

The gauging device will be returned to the Troxler Electronic Laboratories, Incorporated, for maintenance involving dismantling and/or removal of the source holders.

Leak tests will be performed by the user according to established test procedures using the Troxler Model RK-1 Leak Test Kit.

The gauging device will be returned to Troxler Electronic Laboratories, Incorporated, for ultimate disposal.

Use of the gauge(s) will be overseen by a Radiation Protection Officer (see item 7), whose duties will encompass the following:

(a) To assure that byproduct materials possessed under the license conform to the materials listed on the license.

(b) To assure that use of the devices, particularly in the field, is only by individuals authorized by the license.

(c) To assure that all users wear personnel monitoring equipment, such as film badges or thermoluminescence dosimeters (TLD), when required.

Item 15: Radiation Protection Program, (Continued)

(d) To assure that gauges are properly secured against unauthorized removal at all times when they are not in use.

(e) To serve as a point of contact and give assistance in case of emergency (gauge damage in the field, fire, theft, etc.) to assure that proper authorities, for example, NRC, local police, and State personnel, are notified promptly in case of accident or damage to gauges.

(f) To assure that the terms and conditions of the license, such as periodic leak tests, are met and that the required records, such as personnel exposure records, leak test records, etc., are periodically reviewed for compliance with Nuclear Regulatory Commission regulations, requirements, and license conditions.

Island Creek Coal Company
Application for Byproduct Material License

Item 16: Formal Training in Radiation Safety

All users of the devices licensed hereby will have successfully completed a training course conducted by Troxler Electronic Laboratories. This course will specifically address the nuclear density gauge devices to be used, and will cover, at a minimum, the following, to the extent applicable:

(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.

Island Creek Coal Company
Application for Byproduct Material License

Item 17: Experience

Users of the devices have no other work experience with radiation, other than the Troxler course, and hands-on experience with the nuclear density gauge(s) licensed hereby.

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

DANNY COX

of

ISLAND CREEK COAL 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

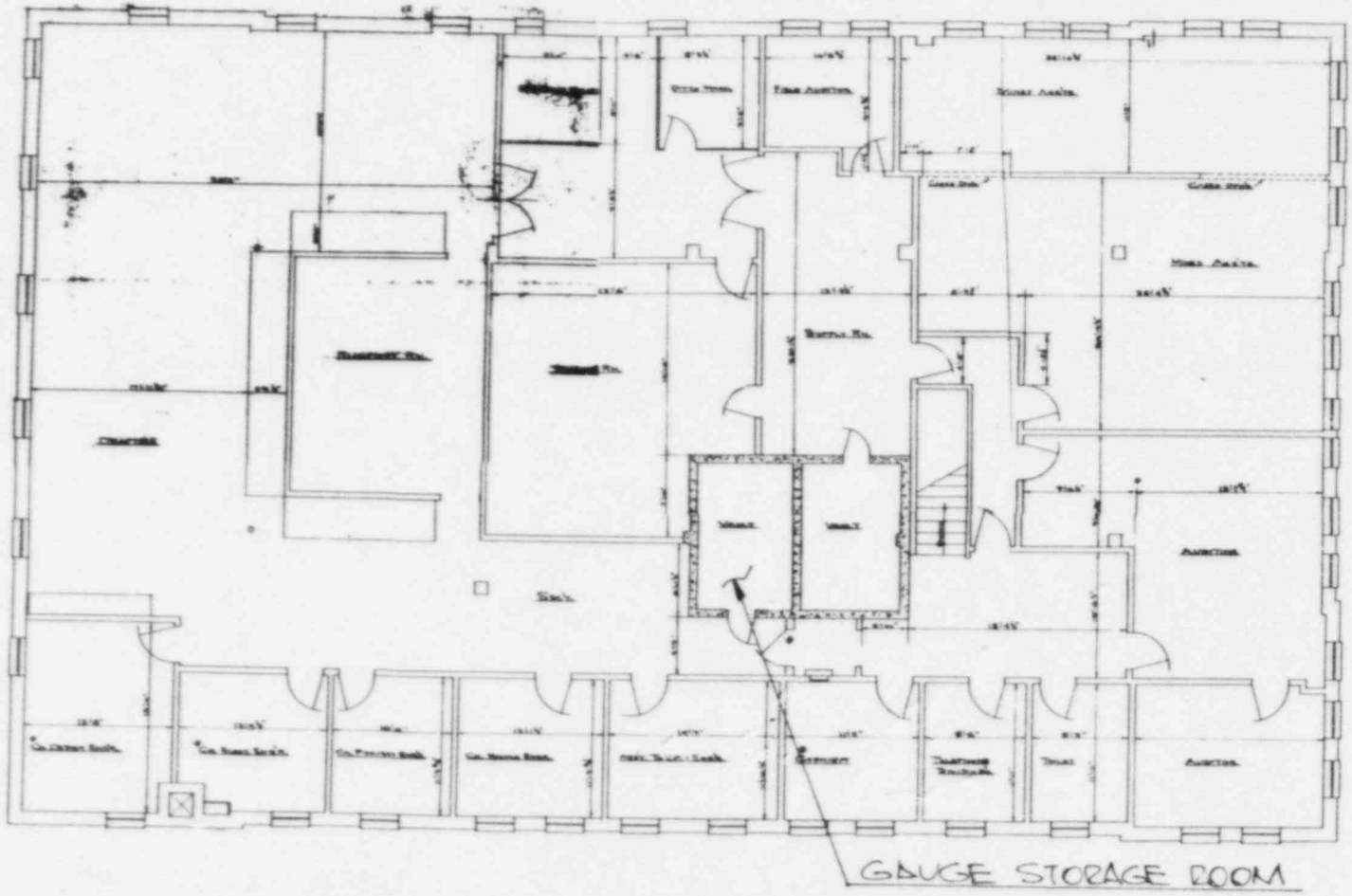
1. *Instrument theory*
2. *Operating procedures*
3. *Maintenance*
4. *Field application*
5. *Gauge calibration*

INSTRUCTOR

5/24/83
DATE

W.F. TROXLER
PRESIDENT

No 02618



ISLAND CREEK COAL COMPANY
HOLDEN, W. VA.

THIRD FLOOR PLAN
MAIN OFFICE BUILDING