

MATERIALS LICENSE

Amendment No. 2

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below, to use such material for the purpose(s) and at the place(s) designated below, to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

DL-062095-02

Licensee		In accordance with application dated May 19, 1995	
1. Eastern Associated Coal Corporation Harris Complex, HCR 78, Box 113		3. License Number	47-25103-01
2. Route 85 Bald Knob, West Virginia 25010		is renewed in its entirety to read as follows:	
		4. Expiration Date	June 30, 2000
		5. Docket or Reference No.	030-31734
6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License	
A. Cesium 137	A. Any sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	A. No single source to exceed 20 millicuries (740 MBq) per source. (See item 9.)	
B. Americium 241	B. Any sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	A. No single source to exceed 300 millicuries (11.1 GBq) per source. (See item 9.)	

9. Authorized Use

A and B Scaled source(s) contained in Coalscan Model 3800 device or other compatible non-portable gauging devices (registered pursuant 10 CFR 32.210 or an equivalent Agreement State regulation) for measuring properties of materials and/or controlling industrial processes

CONDITIONS

- 10. Licensed material shall be used only at the licensee's facilities located at the Harris Complex, Route 85, Bald Knob, West Virginia.
- 11. The Radiation Safety Officer for this license is Richard Thurmond or in his absence, Tommy Bratton.
- 12. Licensed material shall be used by, or under the supervision of, Joseph Benedict, Rodney Thurmond, Richard Thurmond or Tommy Bratton.

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

47-25103-01

Docket or Reference Number

030-31734

Amendment No. 2

(continued)

**CONDITIONS**

13. A. (1) The source(s) specified in Item 7. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
- C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region II, Division of Radiation Safety and Safeguards, Nuclear Material Inspection Section, 101 Marietta Street, Suite 2900, Atlanta, Georgia 30323. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. The licensee is authorized to collect leak test samples for analysis by Troxler Electronics Laboratories, Inc. or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Installation, initial radiation survey, relocation, or removal from service of devices containing sealed sources shall be performed by Scan Technologies, Inc., P.O. Box M-312, York, PA (NRC License No. 37-20807-01) or by other persons specifically licensed by the Commission or an Agreement State to perform such services. Maintenance and repair of devices and installation, replacement, and disposal of sealed sources shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services.
15. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
16. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under this license. Records of inventories shall be maintained for 2 years from the date of each inventory.
17. The licensee shall maintain records of information important to safe and effective decommissioning at the location specified in Item 10 in accordance with the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
18. In addition to the possession limits in item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

47-25103-01

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Amendment No. 2

(continued)

**CONDITIONS**

- 19. Each gauge shall be tested for the proper operation of the on-off mechanism and indicator, if any, at no longer than six-month intervals or at such longer intervals as specified by the manufacturer and approved by NRC.
- 20. The licensee shall operate each gauge within the manufacturer's specified temperature and/or environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
- 21. The licensee shall assure that the shutter mechanism is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify as appropriate its "lock-out" procedures whenever a new gauge is obtained, to incorporate the device manufacturer's recommendations.
- 22. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the Commission or an Agreement State.
- 23. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A Application dated May 19, 1995 (renewal)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

JOHN M. PELCHAI

Date JUN 20 1995

By



Region II, Nuclear Materials Licensing Section  
111 Marietta Street, N.W., Suite 2900  
Atlanta, Georgia 30325

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(FOR LFMS USE)  
INFORMATION FROM LITS

BE WEN:  
License Fee Management Branch, ARM  
and  
Regional Licensing Sections  
Program Code: 03120  
Status Code: 2  
Fee Category: 3P  
Exp. Date: 19950630  
Fee Comments:  
Decon Fin Assur Recd: N

LICENSE FEE TRANSMITTAL

A. REGION II

1. APPLICATION ATTACHED

Applicant/Licensee: EASTERN ASSOCIATED COAL CORP.  
Received Date: 950523  
Bucket No: 3031734  
Control No.: 250445  
License No.: 47-25103-01  
Action Type: Renewal

2. FEE ATTACHED

Amount: 680  
Check No.: 111111

3. COMMENTS

Signed Mitchell  
Date MAY 3 1995  
B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered L1)  
1. Fee Category and Amount: 3P \$680

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal ✓  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_

Signed Lynne Mitchell  
Date 6-8-95

Log	<u>JUN J</u>
Remitter	<u>II</u>
Check No.	<u>HP06051</u>
Amount	<u>\$680</u>
Fee Category	<u>3P</u>
Type of Fee	<u>REN</u>
Date Check Rec'd	<u>6-5-95</u>
Date Completed	<u>6-8-95</u>
By:	<u>Dan Mitchell</u>

(10-84)  
10 CFR 30.32-33  
34, 35, 36, 39 and 40.

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-8 F33) U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503.

# APPLICATION FOR MATERIAL LICENSE

**INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW**

**APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH**

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
OFFICE OF NUCLEAR MATERIALS SAFETY AND QUALITY  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS**

**IF YOU ARE LOCATED IN**

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO

LICENSING ASSISTANT SECTION  
NUCLEAR MATERIALS SAFETY BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION REGION III  
475 ALLENDALE ROAD  
KRYZELLE, MISSISSIPPI 39345

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO

NUCLEAR MATERIALS SAFETY BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION REGION III  
101 MARSHALL STREET, SUITE 200  
ATLANTA, GEORGIA 30303

**IF YOU ARE LOCATED IN**

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO

MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION REGION III  
801 WARRENVILLE RD  
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO

NUCLEAR MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TX 76011-8064

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS

1. NAME AND MAILING ADDRESS OF APPLICANT (include Zip code)

Eastern Associated Coal Corp.  
Harris Complex  
Box 78 Box 113  
Wild Bush, WV 26070

2. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

*Elmer B. Tilley*

TELEPHONE NUMBER

(304) 247-6211

3. ACKNOWLEDGE AND ACCEPT MATERIAL WILL BE USED FOR THE PURPOSES

Eastern Associated Coal Corp.  
Harris Complex  
Box 78 Box 113  
Wild Bush, WV 26070

4. PERIOD IN WHICH LICENSED MATERIAL WILL BE USED

5. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

6. STATEMENT AND SIGNATURE OF APPLICANT

I, *Richard Thurmond*, hereby certify that the information furnished herein is true and correct to the best of my knowledge and belief, and that all nuclear material contained herein is true and correct.

7. STATEMENT AND SIGNATURE OF REPRESENTATIVE

I, *Richard Thurmond*, hereby certify that the information furnished herein is true and correct to the best of my knowledge and belief, and that all nuclear material contained herein is true and correct.

8. FEE

AMOUNT \$ 180.00

9. DATE

5-19-95

**FOR NRC USE ONLY**

APPROVED BY: *Richard Thurmond* DATE: \_\_\_\_\_

250115

**5. RADIOACTIVE MATERIAL:**

<u>MANUFACTURER</u>	<u>ELEMENT/MASS</u>	<u>PHYSICAL FORM</u>	<u>MAX. AMT.</u>
Coalscan 3500	Cesium 137	Sealed Source CDC 806 Amersham	20 mci
Coalscan 3500	Americium 241	Sealed Source AMC 17 Amersham	300 mci

**6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED:**

<u>INSTRUMENT</u>	<u>PURPOSE</u>
Coalscan 3500	Monitor coal quality parameters (ash, sulfur, moisture)

**7. INDIVIDUAL RESPONSIBLE FOR RADIATION SAFETY:**

Richard Thurmond                      Tommy Bratton

The above individuals were trained by Coalsan, at the time of installation.

**8. TRAINING FOR INDIVIDUALS:**

Additional training will be given at the time of installation for the Coalscan model 9000 and 3500 units (see attached outline).

The licensed material as listed in Item 5 will be used by or under the direction of a trained responsible individual, who has completed training on the operation, emergency procedure and radiation safety.

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## **9. FACILITIES AND EQUIPMENT:**

The Coalscan 3500 will be located on the ground floor of the plant, clean coal stacker belt

The environmental conditions, for the above units, are as follows:

Temperature -	Normal ambient
Atmosphere -	Dusty, industrial atmosphere
Vibration -	Normal to moderate industrial vibration

No means of cooling will be required.

Inspections will be made at least once every six (6) months of the source units to verify proper shutter operation, labels and warning tags, and to ensure that the source units are not exposed to corrosive conditions or high temperatures.

In case of an emergency, the following procedures will be followed:

1. Rope off a 15 ft. diameter area around the suspected source head.
2. Post warning signs prohibiting access to this area.
3. Inform safety department and person(s) responsible for use of the source as to the situation.
4. Inform the proper Regional Nuclear Regulatory Commission.
5. Notify the appropriate instrument manufacturer for their assistance.
6. Limit access to source head until a radiation survey and source wipe can be performed by a qualified person or a representative of the manufacturer.

Any additional procedures, as specified by the manufacturer, that will enhance the safety of our employees will be followed.

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## **10. RADIATION SAFETY PROGRAM:**

The installation, initial radiation survey, maintenance, unit relocation or removal will be performed by the unit manufacturer or other person(s) specifically trained to perform the services.

**MANUFACTURER:** Scan Technologies, Inc.  
P. O. Box M-312  
York, PA 17405  
NRC Lic. No. 37-20807-01

Leak testing will be performed at least every six (6) months to determine the presence of .005 microcurie or more, as per manufacturer specifications.

The Troxler 3800 leak test kit will be used.

**MANUFACTURER:** Troxler Electronic Lab. Inc.  
P. O. Box 12057  
Research Triangle Park, NC 27709  
NRC Lic. No. 32-0182-01

The leak tests will be performed by the person(s) specified in Item 7 or other person(s), and/or manufacturer of said units, that have been specifically trained to perform tests.

Manufacturer lock out procedures will be provided to our personnel and will be posted.

The person(s), as specified in Item 7, will be responsible for ensuring that the lock out procedures are followed.

The annual ALARA program audit will be conducted by the RSO and a record shall be maintained.

## **11. WASTE MANAGEMENT:**

The disposal of licensed material contained in the listed units, will be transferred to a licensee specifically authorized to possess the radioactive material.

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## SHORT COURSE IN RADIATION SAFETY

AND

### COALSCAN OPERATION

Course Length: Two days; four sessions per day; total of twelve hours. Sessions will be a mixture of lectures and laboratory work with participants having hands-on experience.

- Session 1.      Radiation Physics I
- Introduction, Atomic Structure, Radiation, Interaction of Radiation with Matter, Gamma-ray Shielding, Neutron Shielding
- Session 2      Introduction to Coalscan
- General Operation, Physics of Measurement, Calibration, Performance Verification
- Session 3      Radiation Physics II
- Radiation Units, Type of Sources, Half-Life, Radiation Background, Limiting Exposure, Biological Effects of Radiation
- Session 4      Coalscan Applications
- General Applications, Specific Application, Calibration Details for this Application, Special Requirements
- Session 5      Radiation Instrumentation and Regulations
- Survey Meters, Dosimeters, Film Badges, Laboratory Experience, Regulations, Industrial Radiation Procedures
- Session 6      Coalscan Radiation Levels
- Expected Dose, Allowed Dose, Comparisons, Worker Safety, Demonstration
- Session 7      Coalscan Operation
- Operating Modes, Monitor Computer, Programmable Logic Controller, Maintenance, Outputs, Graphic Display System
- Session 8      Review
- Review, Examination, License Application