

OFFICIAL RECORD COPY**MATERIALS LICENSE**

Amendment No. 11

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, 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.

Licensee		In accordance with the letter dated May 5, 1997	
1. Hobet Mining, Inc.		3. License number	47-23023-01
2. P.O. Box 305 Madison, West Virginia 25130		is amended in its entirety to read as follows:	
		4. Expiration date	April 30, 2004 (extended)
		5. Docket or Reference No	030-20185 (47-24816-01)
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. Not to exceed 370 megabecquerels (MBq) (10 millicuries) per source	
B. Americium 241	B. Any sealed neutron source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	B. Not to exceed 1.85 gigabecquerels (GBq) (50 millicuries) per source	
C. Cesium 137	C. Sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	C. Not to exceed 925 MBq (25 millicuries) per device	
D. Americium 241	D. Sealed neutron source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	D. Not to exceed 11.1 GBq (300 millicuries) per device	
E. Californium 252	E. Any sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	E. Not to exceed 3 GBq (81 millicuries or 150 micrograms) per device	
F. Cesium 137	F. Sealed registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	F. Two sources not to exceed 925 MBq (25 millicuries) total	



**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number 47-23023-01

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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
G. Californium 252	G. Sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	G. 4 GBq (200 micrograms) (108 millicuries) in nine sources

9. Authorized Use:

- A. and B. Sealed sources contained in compatible portable gauging devices (registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation) for measuring properties of materials.
- C., D. and E. Sealed sources contained in compatible non-portable gauging devices (registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation) for measuring properties of materials and/or controlling industrial processes.
- F. and G. For use in GAMMA-METRICS Model 2000 Bulk Materials Elemental Analyzer to measure chemical and physical properties of coal.

CONDITIONS

- 10. A. Licensed materials in subitems 6.A. and B. shall be used and/or stored at Hobet Mining, Inc. facilities at U.S. Route 119, Beth Station, Julian, West Virginia, and/or the Hobet Mining facilities at the end of County Route 119/22 near Sharples, West Virginia. Licensed materials may be used at temporary job sites of the licensee anywhere in the United States where the Nuclear Regulatory Commission maintains jurisdiction.
- B. Licensed materials in subitems 6.C., D. and E. shall be used only at:
 - (1) Beth Station 23 Preparation Plant, Boone County, 2.2 miles from Lory, West Virginia.
 - (2) Pine Creek No. 12 Preparation Plant, Logan County, 8 miles from Holden, West Virginia
- C. Licensed materials in subitems 6.F. and G. shall be used only at Hobet Mining, Inc. coal consolidation and loading facilities at the end of County Route 119/22 near Sharples, West Virginia.
- 11. The Radiation Protection Officer for the activities authorized by this license is Norris Dyer, and in his absence, Dale Lucha.

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CONDITIONS

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12. A. Licensed material in 6.A. and B. shall be used by, or under the supervision and in the physical presence of, James R. Dillon, or individuals who have been trained in the licensee's standard operating and emergency procedures and have satisfactorily completed at least one of the following:
- (1) The device manufacturer's training course for safe use and handling of portable gauging devices containing licensed material, or;
 - (2) A portable gauge training program conducted in accordance with the provisions of an NRC or Agreement State license.
- B. Licensed material in subitems 6.C., D. and E. shall be used only by or under the supervision of Norris D. Dyer or Dale F. Lucha.
- C. Licensed material in subitems 6.F. and G. shall be used only by or under the supervision of Steve McComas or Rob Graffius, or individuals who have satisfactorily completed the device manufacturer's training program for the safe use and operation of the analyzer, and in the licensee's operating and emergency procedures. The licensee shall maintain records of persons designated as users.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
- C. Sealed sources need not be leak tested if they contain only a radioactive gas; or not more than 100 microcuries of beta and/or gamma emitting material or, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak 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, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The 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 Nuclear Materials Safety, Materials Licensing/Inspection Branch, 101 Marietta Street N.W., Suite 2900, Atlanta, Georgia 30323-0199. The report shall specify the source involved, the test results, and corrective action taken.
- E. The licensee is authorized to collect leak test samples for analysis by Troxler Electronics, Scan Technologies, Inc., or Gamma-Metrics. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

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14. Installation, initial radiation survey, relocation, or removal from service of devices containing sealed sources shall be performed by Norris D. Dyer or by 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. 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.
16. 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.
17. 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.
18. 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.
19. The device Manufacturer's Instruction Manual for Coalscan Model 3500 and Scan Technologies, Inc. Model 9000, and Gamma-Metrics Model 2000 Bulk Materials Elemental analyzers shall be followed and the licensee shall make copies available to each person using or having responsibility for use of licensed material.
20. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport, storage or when not under the direct surveillance of an authorized user.
21. Any cleaning, maintenance, or repair of the portable gauge(s) that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
22. Sealed sources containing licensed material shall not be opened or removed from their respective source housings by the licensee.
23. 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.

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License Number 47-23023-01

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CONDITIONS

Continued -

24. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
25. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum specified 10 CFR 30.35(d) for establishing decommissioning financial assurance.
26. The licensee shall maintain records of information important to safe and effective decommissioning at the Hobet Mining, Inc., U.S. Route 119 N., Shaffer Road Exit, Madison, West Virginia.
27. 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. Applications dated:
 - (1) February 28, 1984
 - (2) January 20, 1989
 - B. Letters dated:
 - (1) January 9, 1985
 - (2) June 20, 1986
 - (3) July 1, 1986
 - (4) January 3, 1991
 - (5) August 4, 1992
 - (6) February 17, 1994 [Renewal]
 - (7) August 31, 1994 [include additional non-portable gauges]
 - (8) February 17, 1995 [add fixed gauge and relocate gauges]
 - (9) September 10, 1996 [report removal of gauge, delete authorized user, report finding of error during ALARA audit]
 - (10) May 5, 1997 [add CoalScan/3500 analyzers & licensee gauge servicing]
 - C. Applications pertaining to the Sharples, West Virginia facility and equipment dated:
 - (1) November 4, 1985 [new license]
 - (2) September 27, 1990 [renewal]
 - (3) June 24, 1991 [new license]
 - (4) March 20, 1996 [terminate Dal-Tex license 47-24816-01, absorb into 47-23023-01]

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CONDITIONS

Continued -

27. Continued

D. Letters pertaining to the Sharples, West Virginia facility and equipment dated:

- (1) July 21, 1991 [coal analyzer interlocks and location diagrams]
- (2) February 24, 1995 [delete RPO, delete separate listing for Berthold microwave included in Gammametrics device]
- (3) June 16, 1995 [Training certificate and fee]

E. Reference March 1, 1996 letter from NRC extending expiration date per 10 CFR 30.36



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DAVID J. COLLINS

DATE MAY 30 1997

BY

David J. Collins

Region II, Division of Nuclear Materials Safety
61 Forsyth St. SW, Suite 23T85
Atlanta, Georgia 30303-3415

N:\MLICENSE\47-23023-411

JH 5/30/97

PRIORITY



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SUITE 23T85
ATLANTA, GA 30303

INFORMATION FOR NRC MATERIAL LICENSEES

MAY 30 1997

Please find enclosed:

- ☒ Your NRC material license
- ☐ Amendment to your NRC material license
- ☐ Amendment renewing your NRC material license
- ☐ Amendment terminating your NRC material license
- ☐ Notice for Radiographer Quality Assurance Approval Program

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify this office (ATTN: Ms. Diane Heim at (404) 562-4723) so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day in the month and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR 19, "Notice, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Not possess and use materials authorized in Items 6, 7, and 8, on the license until:
 - a. you have constructed the facilities and obtained the equipment described in the license application and supporting documentation; and
 - b. you have notified the U. S. Nuclear Regulatory Commission, Region II, ATTN: Materials Licensing/Inspection Branch, in writing, that activities authorized by the license will be initiated.
 - c. you have submitted and certified implementation of a Quality Management Program (10 CFR 35.32) for radiotherapy, or for administering > 30 uCi of I-125 or I-131.
3. Notify NRC, in writing, within 30 days:
 - a. when an authorized user, Radiation Safety Officer, or Teletherapy Physicist permanently discontinues performance of duties under the license or has a name change; or
 - b. when the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).
4. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
 - a. when you decide to terminate all activities involving materials authorized under the license; or
 - b. if you decide not to complete the facility, acquire equipment, or possess and use authorized material.

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

: (FOR LFMS USE)
:
: INFORMATION FROM LTS
:
:
: Program Code: 03121
: Status Code: 0
: Fee Category: 3P
: Exp. Date: 20040430
: Fee Comments: _____
: Decom Fin Assur Req'd: N
:

1997 MAY 19 PM 1:32

LICENSE FEE TRANSMITTAL

A. REGION II

1. APPLICATION ATTACHED

Applicant/Licensee: HOBET MINING, INC.
Received Date: 970514
Docket No: 3020185
Control No.: 257484
License No.: 47-23023-01
Action Type: Amendment

2. FEE ATTACHED

Amount: 300.00
Check No.: 1042

3. COMMENTS

Signed DIANE HEIM
Date 5/14/97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ✓)

1. Fee Category and Amount: 3P \$300

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

Amendment ✓
Renewal _____
License _____

3. OTHER _____

Signed Kita Pressler
Date 5/14/97

Log	<u>May 3 II</u>
Remitter	_____
Check No.	<u>1042</u>
Amount	<u>\$300</u>
Fee Category	<u>3P</u>
Type of Fee	<u>amd</u>
Date Check Rec'd.	<u>5/19/97</u>
Date Completed	<u>5/19/97</u>
By:	<u>lem</u>



HOBET MINING, INC.

P O BOX 305 • MADISON, WEST VIRGINIA 25130 • PHONE (304) 369-6780

May 5, 1997

Ms. Diane Hines
U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., NW
Atlanta, Georgia 30323

Dear Ms. Hines:

This letter is to request that two coalscan Model/3500 coal analysers be added to our license their serial numbers are 18514 and 18758. We are purchasing these units from another coal company that will not allow Coalscan Inc. to remove them from their property and refurbish them until they are taken over by our license. We therefore, request that you expedite this amendment so that the units and the new beltline will be operational at the same time.

While we normally use manufacturers representatives to install and maintain our nuclear devices having the capability to remove a gage to repair a pipe (without having to call and wait for a licensed individual) would be beneficial to us. Therefore, we request that it be made a part of our license that I be allowed to perform the various operations on our equipment, that I was trained to do by TN Technologies. Please find documentation attached.

As we did not anticipate the delay of having to wait for our license to be amended before Coalscan Inc. could pick up the 3500's to refurbish them please give this amendment your attention as soon as possible.

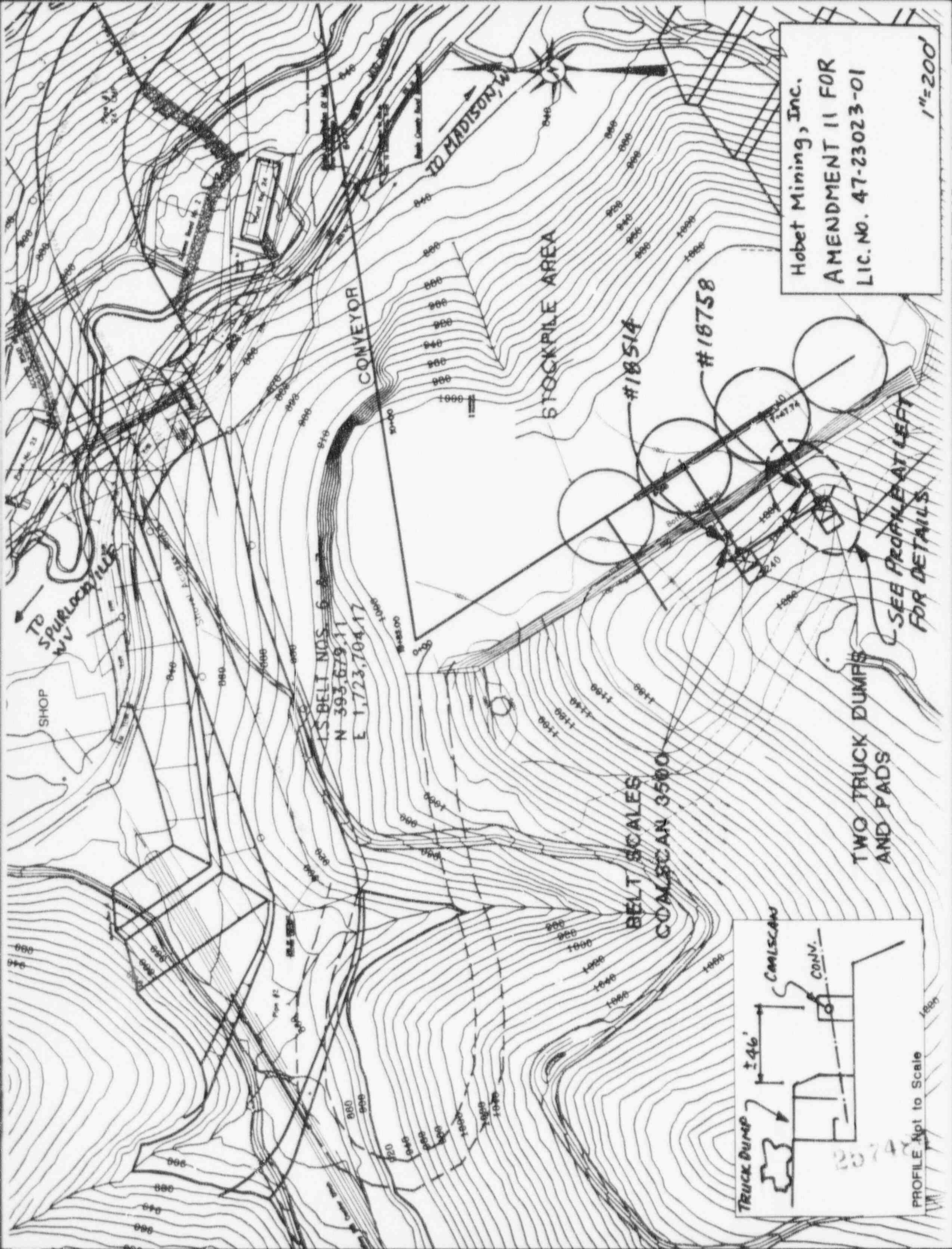
If any additional information is needed to facilitate these changes please contact me at 304-369-6780.

Sincerely,

Norris D. Dyer
Senior Safety Specialist/RSO

NDD/ca

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Hobet Mining, Inc.
AMENDMENT II FOR
LIC. NO. 47-23023-01
1"=200'

U.S. BELT NOS. 6 & 7
N 393,679.11
E 1,723,704.17

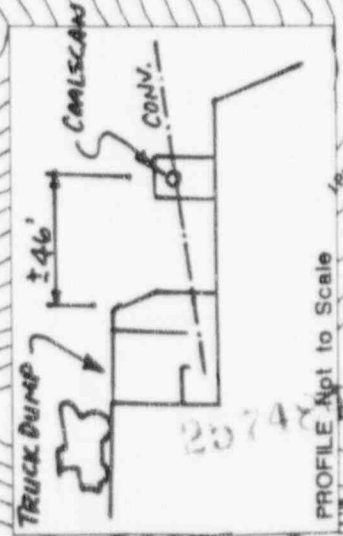
#18514

#18758

BELT SCALES
COMSCAN 3500

TWO TRUCK DUMPS
AND PADS

SEE PROFILE AT LEFT
FOR DETAILS



PROFILE Not to Scale

LETTER OF CERTIFICATION

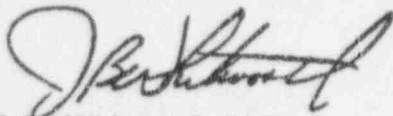
This is to certify that Norris D. Dyer, of Hobet Mining Inc., has attended and successfully completed a 40 hour Industrial Radiation Safety Training course, conducted by TN Technologies Inc. on and described in the attached course outline. The participant received scores of 98.75% on the homework assignments and 92.5% on the exam, resulting in a final course grade of 95%. A course grade of 75% is considered a passing score. The class average was 90.9%.

The course covers fundamentals of radiation, units of dose and quality of radiation fields, hazards of radiation exposure, detection devices, regulatory controls, industrial devices and specific training on installation and leak testing of TN Technologies density, level, and weigh gauges.

This course is structured to qualify persons who complete it to understand and safely perform various operations involving nuclear devices including the installation, relocation, and leak testing of such equipment. The operations are to be performed in accordance with the rules and regulations of the United State Nuclear Regulatory Commission and/or Agreement States, and are in all respects subject to such rules and regulations.

This letter cannot be used in lieu of a specific license from, or other sanction by, an appropriate regulatory agency.

TN TECHNOLOGIES INC.



J. B. Whitworth, PhD.
Director, Technical Services

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OUTLINE
TN TECHNOLOGIES, INC.
40-HOUR INDUSTRIAL RADIATION SAFETY TRAINING COURSE

Atomic Structure (1 hour)

- A. Bohr model
- B. Nuclides and notation
- C. Isotopes

Types of Radiation (2 hours)

- A. Alpha
- B. Beta
- C. Gamma and X
- D. Neutrons

Radioactive Decay (1½ hours)

- A. Activity
- B. Decay schemes
- C. Decay law
- D. Half-life

Radiation Dose Units (1 hour)

- A. Roentgen
- B. Rad
- C. Rem
- D. Quality factor

Interaction of Radiation with Matter (4 hours)

- A. Ionizing vs. nonionizing
- B. Ionization and excitation
- C. Specific ionization
- D. Linear Energy Transfer
- E. Time, distance, and shielding
- F. Inverse square law

Shielding (4 hours)

- A. Alpha particle interactions
- B. Beta particle interactions
- C. Photon interactions
 - 1. Photoelectric, Compton scattering, pair production

- 2. Photon exposure rate

- 3. Half-value layers

- D. Neutron interactions

Biological Effects (4 hours)

- A. Background Radiation
- B. Terminology
- C. Determining Low Dose Radiation Effects
- D. Physical/Chemical Mechanics of Radiation Injury
- E. Genetic Effects
- F. Teratogenic Effects
- G. Carcinogenic Effects
- H. Acute Radiation Injury
- I. Internal Exposure to Radionuclides

Radiation Detection (2 hours)

- A. Fundamentals of detection
- B. Instrument characteristics, uses and limitations
- C. Survey meters

Personnel Monitoring (1 hour)

- A. Requirements
- B. Film badges, TLDs, etc.

Industrial (2 hours)

- A. Industrial device installation
 - 1. Requirements
 - 2. Surveying & leak testing demonstration
- B. Industrial applications

"Hands-On" At Factory (4 hours) - performance reviewed by qualified TN Technical Services personnel

- A. Demonstration/discussion of different survey meters

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- B. Use of portable radiation survey meters
- C. Survey a fixed gauge
- D. Prepare survey forms
- E. Leak test devices using QT/IS procedure

Regulatory Control (4 hours)

- A. Title 10 Code of Federal Regulations
- B. Agreement states
- C. Licensing procedures
- D. General vs specific license
- E. User responsibility

**Radiation Protection Program - ALARA
(4 hours)**

- A. ALARA statement
- B. Radiation Protection Program
- C. Operating, safety, and emergency procedures
- D. Compliance with dose limits
- E. Employee notification
- F. Recordkeeping
- G. Posting
- H. Training
- I. Incident reporting

Shipping Radioactive Material (1½ hours)

**Closed-book, Written Exam on Lectures
and Homework Assignments (1½ hours)**

Note: A minimum 1 hour of homework is assigned each evening during the course.

Certificate of Training

This is to certify that

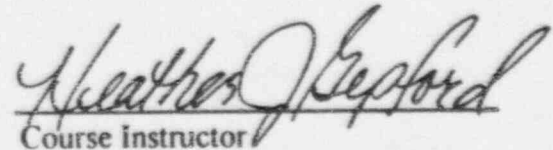
NORRIS D. DYER

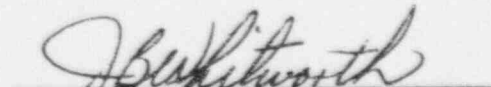
Has Successfully Completed

A 40 Hour Radiation Safety Training Course

Presented by TN Technologies

Date Issued: May 6, 1996


Course Instructor


James B. Whitworth, Ph.D.
Director of Technical Services

TN Technologies
A Thermo Instruments Company

P.O. Box 800, Round Rock, Texas 78680-0800
Tel.: (512) 388-9100, Fax: (512) 388-9200

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