



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

October 12, 2006

Docket No. 03033571
Control No. 139456

License No. 47-25301-01

Thomas Chapman
Vice President
Catenary Coal Company
Samples Mine
5914 Cabin Creek Road
Eskdale, WV 25075-9656

SUBJECT: CATENARY COAL COMPANY, LICENSE AMENDMENT, CONTROL NO.
139456

Dear Mr. Chapman:

This refers to your license amendment request dated September 19, 2006. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Industrial, and Academic Uses of Nuclear Material**; then **Toolkit Index Page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

Original signed by Sattar Lodhi, Ph.D.

Sattar Lodhi, Ph.D.
Senior Health Physicist
Materials Security and Industrial Branch
Division of Nuclear Materials Safety

T. Chapman
Catenary Coal Company

2

Enclosure:
Amendment No. 11

cc:
Robert Hill, Radiation Safety Officer

DOCUMENT NAME: E:\Filenet\ML062850483.wpd

SUNSI Review Complete: SLodhi

After declaring this document "An Official Agency Record" it will be released to the Public.

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

| | | | | | | | | |
|--------|------------|---|---------|--|---------|--|--|--|
| OFFICE | DNMS/RI | N | DNMS/RI | | DNMS/RI | | | |
| NAME | SLodhi/ASL | | | | | | | |
| DATE | 10/12/2006 | | | | | | | |

OFFICIAL RECORD COPY

MATERIALS LICENSE

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.

| | |
|--|--|
| <p style="text-align: center;">Licensee</p> <p>1. Catenary Coal Company Samples Mine</p> <p>2. 5914 Cabin Creek Road Eskdale, West Virginia 25075-9656</p> | <p>In accordance with the letter dated September 19, 2006,</p> <p>3. License number 47-25301-01 is renewed in its entirety to read as follows:</p> <hr/> <p>4. Expiration date October 31, 2014</p> <hr/> <p>5. Docket No. 030-33571 Reference No.</p> |
|--|--|

| | | |
|--|--|---|
| <p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium 137</p> <p>B. Cesium 137</p> <p>C. Americium 241</p> | <p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (TN Technologies Model 57157C, 696894; Kay-Ray Model 7700-Y; AEA Technology Models CDC.704, CDC.705; Isotope Products Lab Model 225)</p> <p>B. Sealed Sources (AEA Technology/QSA Model CSCW556; Isotope Products Laboratories Model HEG-137)</p> <p>C. Sealed Sources (AEA Technology/QSA Model AMNV.997; Isotope Products Laboratories Models 3021, 3027; Am1.NO2)</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State</p> <p>B. No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State</p> <p>C. No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State</p> |
|--|--|---|

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
47-25301-01

Docket or Reference Number
030-33571

Amendment No. 11

- | | | |
|---|--|--|
| 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 |
| D. Californium 252 | D. Sealed Sources (Monsanto 2765; AEA Technology Model CDC.CY6; Amersham Models CVN.CN2, CVN.CY6, CVN.5, CVN.6, CVN.7, CVN.10, CVN.11; Frontier Technology Model 100 Series) | D. No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State |

9. Authorized use:

- A. and D. To be used, for measuring properties of materials and/or controlling industrial processes, in Gamma-Metrics Bulk Materials Elemental Analyzer, Model 2000 or CB-HI; TN Technologies; Sabia Inc., Model L-2000 and/or Kay-Ray fixed gauging devices that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with a Commission or Agreement State specific license authorizing distribution to persons specifically authorized by a Commission or Agreement State license to receive, possess, and use the devices.
- B. and C. In Troxler Electronic Laboratories Model 3430 portable gauging devices for measuring physical properties of materials.

★ ★ ★
CONDITIONS
★ ★ ★

10. Licensed material may be used or stored only at the licensee's facilities located at the Catenary Coal Company's Samples Mine processing plant, at the railroad load out building and with the feed conveyor to the coal silos at the Toms Fork Unit Train Loadout, WV County Route 79/3, Cabin Creek Road, near Leewood, West Virginia, and at the Catenary Coal Company's Rensford processing plant, at 42 Rensford Star Route, Point Lick Drive, Charleston, West Virginia.
11. A. Licensed material in Items 6.A. and 6.D. shall be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the application dated September 28, 2004. The Radiation Safety Officer shall maintain written designations of individuals for 3 years after the last use of licensed materials.
- B. Licensed material in Items 6.B. and 6.C. shall be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the application dated July 6, 2006.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
47-25301-01Docket or Reference Number
030-33571

Amendment No. 11

12. The Radiation Safety Officer for this license is Robert Hill.
13. 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.
14. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
15. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- C. Sealed sources need not be tested if they 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 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 185 becquerels (Bq) (0.005 microcurie) of radioactive material on the test sample. If the test reveals the presence of 185 Bq or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- E. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
47-25301-01Docket or Reference Number
030-33571

Amendment No. 11

16. Sealed sources, detector cells, or source rods containing licensed material shall not be opened or sources removed or detached from source rods or gauges by the licensee, except as specifically authorized.
17. A. Each gauge shall be tested for the proper operation of the on-off mechanism (shutter) and indicator, if any, at intervals not to exceed 6 months or at such longer intervals as specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or the equivalent regulations of an Agreement State.
- B. Notwithstanding the periodic on-off mechanism (shutter) and indicator test, the requirement does not apply to gauges that are stored, not being used, and have the shutter lock mechanism in a locked position. The gauges exempted from this periodic test shall be tested before use.
18. The following services shall not be performed by the licensee: installation, initial radiation surveys, relocation, removal from service, dismantling, alignment, replacement, disposal of the sealed source and non-routine maintenance or repair of components related to the radiological safety of the gauge (i.e., the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding). These services shall be performed only by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
19. The licensee may initially mount a gauge if permitted by the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State and under the following conditions:
- A. The gauge must be mounted in accordance with written instructions provided by the manufacturer;
- B. The gauge must be mounted in a location compatible with the "Conditions of Normal Use" and "Limitations and/or Other Considerations of Use" in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State;
- C. The on-off mechanism (shutter) must be locked in the off position, if applicable, or the source must be otherwise fully shielded;
- D. The gauge must be received in good condition (i.e., package was not damaged); and
- E. The gauge must not require any modification to fit in the proposed location.

Mounting does not include electrical connection, activation or operation of the gauge. The source must remain fully shielded and the gauge may not be used until it is installed and made operational by a person specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such operations.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
47-25301-01Docket or Reference Number
030-33571

Amendment No. 11

20. A. The licensee may maintain, repair, or replace device components that are not related to the radiological safety of the device and that do not result in the potential for any portion of the body to come into contact with the primary beam or in increased radiation levels in accessible areas.
- B. The licensee may not maintain, repair, or replace any of the following device components: the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, or shielding, or any other component related to the radiological safety of the device, except as provided otherwise by specific condition of this license.
21. 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 U.S. Nuclear Regulatory Commission or an Agreement State.
22. The licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
23. The licensee shall assure that the shutter mechanism, for each device containing licensed material, 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 device is obtained to incorporate the device manufacturer's recommendations.
24. 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 or storage, or when not under the direct surveillance of an authorized user.
25. Any cleaning, maintenance, or repair of the gauges that requires detaching the source or source rod from the gauge shall be performed only by the manufacturer or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
26. A. If the licensee uses unshielded sealed sources extended more than 3 feet below the surface, the licensee shall use surface casing that extends from the lowest depth to 12 inches above the surface and other appropriate procedures to reduce the probability of the source or probe becoming lodged below the surface. If it is not feasible to extend the casing 12 inches above the surface, the licensee shall implement procedures to ensure that the cased hole is free of obstruction before making measurements.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
47-25301-01

Docket or Reference Number
030-33571

Amendment No. 11

- B. If a sealed source or a probe containing sealed sources becomes lodged below the surface and it becomes apparent that efforts to recover the sealed source or probe may not be successful, the licensee shall notify the U.S. Nuclear Regulatory Commission and submit the report required by 10 CFR 30.50(b)(2) and (c). The licensee shall not abandon the sealed source or probe without obtaining the Commission's prior written consent.
27. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
28. 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. This license condition applies only to those procedures that are required to be submitted in accordance with the regulations. Additionally, this license condition does not limit the licensee's ability to make changes to the radiation protection program as provided for in 10 CFR 35.26. The U.S. 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 April 20, 2004 (ML041270290)
 B. Application dated September 28, 2004 (ML043000121)
 C. Letter dated April 26, 2005 (ML051440762)
 D. Application dated July 6, 2006 (ML061870303)

For the U.S. Nuclear Regulatory Commission

Date October 12, 2006

By

Original signed by Sattar Lodhi, Ph.D.

Sattar Lodhi, Ph.D.
 Materials Security and Industrial Branch
 Division of Nuclear Materials Safety
 Region I
 King of Prussia, Pennsylvania 19406-1415