



**MARSHALL COUNTY COAL RESOURCES, INC.**

46226 NATIONAL ROAD ST. CLAIRSVILLE, OHIO 43950

May 12, 2021

Licensing Assistance Team  
Division of Nuclear Materials Safety  
U.S. Nuclear Regulatory Commission, Region 1  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 199406-2713

**RE: License Renewal**  
**License No. 34-35134-01**  
**Marshall County Coal Resources, Inc.**

Dear Sir or Madam:

Please find the enclosed license renewal application (NRC form 313) for the Marshall County Coal Resources, Inc.'s Specific License No. 34-35134-01. The license is set to expire on June 30, 2021.

Should you have any questions or require any additional information, please do not hesitate to contact me. My contact information is listed below.

Sincerely,



Eric Barto  
Permit Engineer  
Office: (740) 338-3218  
Cell: (304) 780-1820  
[ebarto@acnrinc.com](mailto:ebarto@acnrinc.com)

**NRC FORM 313**

**U.S. NUCLEAR REGULATORY COMMISSION**

**APPROVED BY OMB: NO. 3150-0120**

**EXPIRES: 01/31/2023**

(01-2020)  
10 CFR 30, 32,  
33, 34, 35, 36,  
37, 39, and 40



**APPLICATION FOR MATERIALS LICENSE**

Estimated burden per response to comply with this mandatory collection request: 4.3 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. Send comments regarding burden estimate to the Information Services Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

**INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/>. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.**

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

MATERIALS SAFETY LICENSING BRANCH  
DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS  
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:**

**IF YOU ARE LOCATED IN:**

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

**SEND APPLICATIONS TO:**

LICENSING ASSISTANCE TEAM  
DIVISION OF NUCLEAR MATERIALS SAFETY  
U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PA 19406-2713

**IF YOU ARE LOCATED IN:**

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

MATERIALS LICENSING BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

**IF YOU ARE LOCATED IN:**

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, 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 BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
1600 E. LAMAR BOULEVARD  
ARLINGTON, TX 76011-4511

**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. THIS IS AN APPLICATION FOR (Check appropriate item)

A. NEW LICENSE

B. AMENDMENT TO LICENSE NUMBER \_\_\_\_\_

C. RENEWAL OF LICENSE NUMBER 34-35134-01

2. NAME AND MAILING ADDRESS OF APPLICANT (Include zip code)

Marshall County Coal Resources, Inc.  
46226 National Road  
St. Clairsville, Ohio 43950

3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED

Marshall County Coal Resources, Inc.  
8126 Energy Road  
Moundsville, WV 26041

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Eric Barto

|                           |                                    |
|---------------------------|------------------------------------|
| BUSINESS TELEPHONE NUMBER | BUSINESS CELLULAR TELEPHONE NUMBER |
| 740-338-3100              |                                    |
| BUSINESS E-MAIL ADDRESS   |                                    |
| ebarto@acnrinc.com        |                                    |

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

7. RADIATION SAFETY PROGRAM.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

9. FACILITIES AND EQUIPMENT.

11. WASTE MANAGEMENT.

12. LICENSE FEES (Fees required only for new applications, with few exceptions\*)  
(See 10 CFR 170 and Section 170.31)  
\*Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.

|              |    |                    |  |
|--------------|----|--------------------|--|
| FEE CATEGORY | 3P | AMOUNT ENCLOSED \$ |  |
|--------------|----|--------------------|--|

**PER THE DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), YOU ARE REQUIRED TO PROVIDE YOUR TAXPAYER IDENTIFICATION NUMBER. PROVIDE THIS INFORMATION BY COMPLETING NRC FORM 531: <https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html>.**

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR 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.

|   |           |         |
|---|-----------|---------|
| CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE | SIGNATURE | DATE    |
| Guy R. Sheldy / VICE PRESIDENT, ENGINEERING       |           | 5-10-21 |

**FOR NRC USE ONLY**

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|-------------|---------|--------------|-----------------|--------------|----------|
|             |         |              | \$              |              |          |
| APPROVED BY |         |              |                 | DATE         |          |

### Suggested Format for Providing Information Requested in Items 5 Through 11 of NRC Form 313

**Table B.1 Items 5 & 6: Materials To Be Possessed and Proposed Uses**

| Yes | No | Radioisotope | Manufacturer or Distributor Model No.   | Quantity  | Use As Listed on SSD Certificate  | Specify Other Uses Not Listed on SSD Certificate  |
|-----|----|--------------|---|---|---|---|
|     | X  | Cobalt-60    | Sealed source manufacturer or distributor and model number:<br><hr/> Device manufacturer or distributor and model number:<br><hr/>                            | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]<br>Specific description of the gauge use:<br><hr/><br><hr/><br><hr/><br><hr/><br><hr/>                  | [ ] Not applicable<br><hr/> [ ] Uses are:<br><hr/> (Submit safety analysis supporting safe use) |
|     | X  | Krypton-85   | Sealed source manufacturer or distributor and model number:<br><hr/> Device manufacturer or distributor and model number:<br><hr/>                            | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]<br>Specific description of the gauge use:<br><hr/><br><hr/><br><hr/><br><hr/><br><hr/>                  | [ ] Not applicable<br><hr/> [ ] Uses are:<br><hr/> (Submit safety analysis supporting safe use) |
|     | X  | Strontium-90 | Sealed source manufacturer or distributor and model number:<br><hr/> Device manufacturer or distributor and model number:<br><hr/>                            | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]<br>Specific description of the gauge use:<br><hr/><br><hr/><br><hr/><br><hr/><br><hr/>                  | [ ] Not applicable<br><hr/> [ ] Uses are:<br><hr/> (Submit safety analysis supporting safe use) |
| X   |    | Cesium-137   | Sealed source manufacturer or distributor and model number:<br>See Attached Source Data<br>Device manufacturer or distributor and model number:<br>*<br><hr/> | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [X]<br>Specific description of the gauge use:<br>Coal Analysis<br><hr/><br><hr/><br><hr/><br><hr/><br><hr/> | [X] Not applicable<br><hr/> [ ] Uses are:<br><hr/> (Submit safety analysis supporting safe use) |

\* Thermo Gamma Metrics, LLC. Model CB HI (CQM).

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| Yes  | No | Radioisotope                         | Manufacturer or Distributor Model No.   | Quantity  | Use As Listed on SSD Certificate  | Specify Other Uses Not Listed on SSD Certificate  |
|--|----|--------------------------------------|---|---|---|---|
|  | X  | Americium-241                        | Sealed source manufacturer or distributor and model number:<br><br>Device manufacturer or distributor and model number:   | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]<br>Specific description of the gauge use:<br>_____<br>_____<br>_____<br>_____                         | [ ] Not applicable<br>_____<br>[ ] Uses are:<br>_____<br>(Submit safety analysis supporting safe use) |
| X  |    | Other Isotope (Specify):<br>Cf - 252 | Sealed source manufacturer or distributor and model number:<br><small>See Attached Source Data</small><br>Device manufacturer or distributor and model number:<br>* | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [X]<br>Specific description of the gauge use:<br><u>Coal Analysis</u><br>_____<br>_____<br>_____<br>_____ | [X] Not applicable<br>_____<br>[ ] Uses are:<br>_____<br>(Submit safety analysis supporting safe use) |
| <i>Financial Assurance Required and Evidence of Financial Assurance Provided</i> |    |                                      |   |   |   |   |

\* Thermo Gamma Metrics, LLC Model CB HI (CQM)

**Table B.2 Items 7 Through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal**

| Item No. and Title  | Suggested Response   | Yes                                    | Alternative Procedures Attached |
|---|--|--|---------------------------------|
| <p>7. Individual(s) Responsible For Radiation Safety Program And Their Training And Experience</p> <p>7.1 Radiation Safety Officer</p> <p>Name: <u>Dan Burlenski</u></p> <p>Certificate of Radiological Training expires 5/15/22.</p> | <p>Before obtaining licensed materials, the proposed RSO will have successfully completed the training described in Criteria in the section entitled "Individual(s) Responsible for Radiation Safety Program and Their Training and Experience - Radiation Safety Officer" in NUREG-1556, Vol. 4, dated October 1998.</p> <p style="text-align: center;"><b>AND</b></p> <p>Before being named as the RSO, future RSOs will have successfully completed the training described in Criteria in the section entitled "Individual(s) Responsible for Radiation Safety Program and Their Training and Experience - Radiation Safety Officer" in NUREG-1556, Vol. 4, dated October 1998. Within 30 days of naming a new RSO, we will submit the new RSO's name to NRC to include in our license.</p> | <input checked="" type="checkbox"/>    | <input type="checkbox"/>        |
| <p>7. Individual(s) Responsible For Radiation Safety Program And Their Training And Experience</p> <p>7.2 Authorized Users</p>  | <p>PROPOSED AUTHORIZED USERS:</p> <p>Before using licensed materials, authorized users will have successfully completed the training described in Criteria in the section entitled, "Authorized Users" in NUREG-1556, Vol. 4, dated October 1998.</p>  | <input checked="" type="checkbox"/>    | <input type="checkbox"/>        |
| <p>8. Training for Individuals Who in the Course of Employment are Likely to Receive Occupational Doses of Radiation in Excess of 1 mSv (100 mrem) in a Year (Occupationally Exposed Workers) and Ancillary Personnel</p>             | <p>The applicant is <i>not</i> required to, and should not, submit a training program, for individuals who in the course of employment are likely to receive occupational doses of radiation in excess of 1 mSv (100 mrem) in a year (occupationally exposed workers) and ancillary personnel, to the NRC for review during the licensing phase.</p>   | Need Not Be Submitted with Application |                                 |

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| Item No. and Title   | Suggested Response  | Yes                                    | Alternative Procedures Attached |
|--|---|--|---------------------------------|
| 9. Facilities and Equipment  | We will ensure that the location of each fixed gauge meets the Criteria in the section entitled "Facilities and Equipment" in NUREG-1556, Vol. 4, dated October 1998.   | <input checked="" type="checkbox"/>    | <input type="checkbox"/>        |
| 10. Radiation Safety Program - Audit Program                       | The applicant is <i>not</i> required to, and should not, submit its audit program to the NRC for review during the licensing phase.   | Need Not Be Submitted with Application |                                 |
| 10. Radiation Safety Program - Survey Instruments                  | <p>Surveys pursuant to 10 CFR 20.1501 will be performed by a person specifically authorized by the NRC or an Agreement State to perform these surveys.</p> <p style="text-align: center;"><b>OR</b></p> <p>We will use instruments that meet the Criteria in the section entitled "Radiation Safety Program - Instruments," in NUREG-1556, Vol. 4, dated August 1998, and <i>one</i> of the following:</p> <p style="padding-left: 40px;">Each survey meter will be calibrated by the manufacturer or other person authorized by the NRC or an Agreement State to perform survey meter calibrations.</p> <p style="text-align: center;"><b>OR</b></p> <p>We will implement the model survey instrument calibration program in Appendix I to NUREG-1556, Vol. 4, dated October 1998.</p> | <input checked="" type="checkbox"/>    | <input type="checkbox"/>        |
| 10. Radiation Safety Program - Material Receipt and Accountability | Physical inventories will be conducted at intervals not to exceed 6 months or at other intervals approved by the NRC, to account for all sealed sources and devices received and possessed under the license.   | <input checked="" type="checkbox"/>    | <input type="checkbox"/>        |
| 10. Radiation Safety Program - Occupational Dosimetry              | We will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the Criteria in the section entitled "Radiation Safety Program - Occupational Dosimetry," in NUREG-1556, Vol. 4, dated October 1998.  | <input checked="" type="checkbox"/>    | <input type="checkbox"/>        |

| Item No. and Title  | Suggested Response  | Yes  | Alternative Procedures Attached |
|---|---|--|---------------------------------|
| 10. Radiation Safety Program - Public Dose                      | The applicant is not required to submit a response to the public dose section during the licensing phase. However, during NRC inspections, licensees must be able to provide documentation demonstrating, by measurement or calculation, that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed operation does not exceed the annual limit for individual members of the public.   | Need Not Be Submitted with Application   |                                 |
| 10. Radiation Safety Program - Operating & Emergency Procedures | <p>If the gauge meets one or more of the safety conditions specified in "Discussion," in the section entitled "Radiation Safety Program-Operating Emergency Procedures," in NUREG 1556, Vol. 4, dated August 1998 state the following:</p> <p>Operating and emergency procedures will be developed, implemented, maintained, and distributed, and will meet the Criteria in the section entitled "Radiation Safety Program - Operating and Emergency Procedures," in NUREG-1556, Vol. 4, dated August 1998.</p> <p>For each gauge requested that does not meet one or more of the safety conditions specified in "Discussion," in the section entitled "Radiation Safety Program-Operating Emergency Procedures," in NUREG 1556, Vol. 4, dated August 1998 provide your operating, emergency and lock-out (if applicable) procedures to NRC for review.</p> | <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/> Procedures Attached</p> | <p><input type="checkbox"/></p> |
| 10. Radiation Safety Program - Leak Test                        | <p>Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the Sealed Source and Device Registration Certificate. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the kit supplier's instructions.</p> <p style="text-align: center;"><b>OR</b></p> <p>We will implement the model leak test program published in Appendix M to NUREG-1556, Vol. 4, dated October 1998.</p>  | <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p>                     | <p><input type="checkbox"/></p> |

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| Item No. and Title  | Suggested Response  | Yes  | Alternative Procedures Attached  |
|---|---|--|--|
| 10. Radiation Safety Program - Maintenance                              | <p><u>ROUTINE MAINTENANCE</u><br/>We will implement and maintain procedures for routine maintenance of our fixed gauges according to each manufacturer's or distributor's written recommendations and instructions.</p> <p><u>NON-ROUTINE MAINTENANCE OPERATIONS</u><br/>The gauge manufacturer, distributor or other person authorized by NRC or an Agreement State will perform non-routine operations such as installation, initial radiation survey, repair, and maintenance of components related to the radiological safety of the gauge, gauge relocation, replacement, and disposal of sealed sources, alignment, or removal of a gauge from service.</p> | <input checked="" type="checkbox"/>                | <p style="text-align: center;"><input type="checkbox"/></p> <p><input type="checkbox"/> The information listed in Appendix N supporting a request to perform non-routing operations in-house is attached</p> |
| 10. Radiation Safety Program - Transportation                           | The applicant is <i>not</i> required to submit its response to transportation during the licensing process; this issue will be reviewed during inspection. However, the licensee should develop, implement, and maintain transportation procedures according to NRC and DOT regulations.  | Need Not Be Submitted with Application             |  |
| 10. Radiation Safety Program - Fixed Gauges Used at Temporary Job Sites | <p>This is not applicable to our program. We will not use fixed gauges at temporary job sites.</p> <p style="text-align: center;"><b>OR</b></p> <p>We will develop, implement, maintain and distribute procedures that meet the Criteria in the section entitled "Radiation Safety Program - Fixed Gauges Used at Temporary Job Sites" in NUREG-1556, Vol. 4, dated October 1998.</p>   | <input checked="" type="checkbox"/> Not Applicable | <input type="checkbox"/>   |
| 10. Radiation Safety Program - Minimization of Contamination            | The applicant is not required to submit a response to minimization of contamination if the applicant's responses meet the criteria for the following sections: Radioactive Material - Sealed Sources and Devices, Facilities and Equipment, Radiation Safety Program - Operating and Emergency Procedures, Radiation Safety Program - Leak Testing, and Waste Management - Gauge Transfer and Disposal.   | Need Not Be Submitted with Application             |  |



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| Item No. and Title                               | Suggested Response   | Yes | Alternative Procedures Attached        |
|--|--|-----|--|
| 11. Waste Management - Gauge Disposal & Transfer | The applicant is not required to submit a response to waste management during the licensing process. However, the licensee should develop, implement, and maintain gauge transfer and disposal procedures in its radiation protection program. |     | Need Not Be Submitted with Application |

**SOURCE DATA**

| <b>Manufacture</b>   | <b>Model</b> | <b>Serial Number</b> | <b>Isotope</b> | <b>Amount (ugm)</b> | <b>Amount (mCi)</b> | <b>Status</b> | <b>Contamination</b> |
|----------------------|--------------|----------------------|----------------|---------------------|---------------------|---------------|----------------------|
| Frontier Technology  | 100          | FTC-CF-7592          | CF 252 - X19   | 19.31               | 10.37               | Installed     | < 0.005 uCi          |
| E&Z Isotope Products | HEG-137      | Z-786                | Cesium 137     | 10.62               | 5.70                | Installed     | < 0.005 uCi          |
| Frontier Technology  | 100          | FTC-CF-4403          | CF 252 - X10   | 1.34                | 0.72                | Installed     | < 0.005 uCi          |
| Frontier Technology  | 100          | FTC-CF-5084          | CF 252 - X10   | 2.53                | 1.36                | Installed     | < 0.005 uCi          |