



Cornerstone Minerals, LLC

150 Courthouse Road, Suite 302, Princeton, WV 24740
Phone (681) 282 - 5654 Fax (681) 282 - 5658

July 10, 2019

Micheal Reichard
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

47-35554-01
03039181

REC RG 1 07 30 19 AM 07:11

RE: Control #612472

Dear Micheal,

Please see attached the documents, Appendix B of NUREG 1556, VOL 4, you requested be filled out and sent back to you.

If you have any questions or concerns, please contact our facility at 304-320-9615.

Thank you in advance for your prompt attention to this matter.

Sincerely,

Chief Executive Officer

612472

NMSS/RGN1 MATERIALS-002

(10-2017)
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-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to 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/nureg/data/t1556/>. 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 _____

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

Cornerstone Minerals LLC
P.O. Box 5650
Princeton, WV 24740

3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED

Cornerstone Minerals Prep Plant
5701 Crane Creek Road
Rock, WV 24747

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Christopher Hardy

BUSINESS TELEPHONE NUMBER
304-320-9615

BUSINESS CELLULAR TELEPHONE NUMBER

BUSINESS E-MAIL ADDRESS
Chardy@csminerals.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. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

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

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

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

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	3.P.	AMOUNT ENCLOSED \$	3,400.00
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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

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
U.S. NUCLEAR REGULATORY COMMISSION FORM 313**

Items 5 and 6: Materials To Be Possessed and Proposed Uses

Yes	No	Radionuclide	Manufacturer or Distributor Model No.	Quantity	Use as Listed on SSD Registration Certificate	Specify Other Uses Not Listed on SSD Registration Certificate
		Isotope (Specify): Cesium-137	Device manufacturer (or distributor) and model number: <u>Berthold</u> Model: CS7.P02	Specify activity per source and number of gauges requested. 370 MBq 2 gauges	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>Density Measurement</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
		Isotope (Specify): Cesium-137	Device manufacturer (or distributor) and model number: <u>GSA Global</u> Model: CDC.805	Specify activity per source and number of gauges requested. 370 MBq 1 source	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>Use in DBA-400 Ashmeter</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
		Isotope (Specify): Americium-241	Device manufacturer (or distributor) and model number: <u>GSA Global</u> Model: AMC.26	Specify activity per source and number of gauges requested. 7.4 GBq 1 source	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>Use in DBA-400 Ashmeter</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
	<input checked="" type="checkbox"/>	Is financial assurance required? If yes, submit evidence of financial assurance.				

NOTE: Copy and attach additional pages as needed.

**SUGGESTED FORMAT FOR PROVIDING INFORMATION REQUESTED IN
ITEMS 5 THROUGH 11 OF
U.S. NUCLEAR REGULATORY COMMISSION FORM 313**

Items 5 and 6: Materials To Be Possessed and Proposed Uses

Yes	No	Radionuclide	Manufacturer or Distributor Model No.	Quantity	Use as Listed on SSD Registration Certificate	Specify Other Uses Not Listed on SSD Registration Certificate
		Isotope (Specify): Californium 252	Device manufacturer (or distributor) and model number: <u>QSA Global</u> CUN. CN2, CUN. C46, CUN. 5, CUN. 6, CUN. 7, CUN. 10, CUN. 11	Specify activity per source and number of gauges requested. 2.22 GBq Six Sources Total	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: <u>Use in</u> <u>EPA Elemental</u> <u>Analyzer</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
		Isotope (Specify): Californium 252	Device manufacturer (or distributor) and model number: <u>Frontier Tech</u> Model: 10, 10S, 100, 100S	Specify activity per source and number of gauges requested.	Yes <input type="checkbox"/> Specific description of the gauge use:	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
		Isotope (Specify):	Device manufacturer (or distributor) and model number:	Specify activity per source and number of gauges requested.	Yes <input type="checkbox"/> Specific description of the gauge use:	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
Is financial assurance required? If yes, submit evidence of financial assurance.						

NOTE: Copy and attach additional pages as needed.

**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 Name: <u>Chris HARDY</u></p>	<p>Documentation demonstrating the proposed radiation safety officer's training and experience (e.g., certificate of completion of the RSO's course and/or the authorized user's course).</p>	<p>Submit applicable documentation.</p>	
<p>7. Individual(s) Responsible For Radiation Safety Program and Their Training and Experience</p> <p>7.2 Authorized users</p>	<p>Before using licensed materials, authorized users will have successfully completed one of the training courses described in the "Criteria" part of the section titled, "Authorized Users" in NUREG-1556, Volume 4, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licenses."</p>	<p align="center"><input checked="" type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p>
<p>8. Training for Individuals Working In or Frequenting Restricted Areas</p>	<p>The applicant is <i>not</i> required to and should not submit its 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>	<p align="center">Need not be submitted with application.</p>	

**ITEM 7 – INDIVIDUAL RESPONSIBLE
FOR RADIATION SAFETY**

Radiation Safety Officer – Christopher Hardy

Title of Course: Radiation Safety Officer Training

**Where and When: Cornerstone Minerals LLC
Princeton, WV
June 3rd – June 7th**

Name of Instructor: David Swindell, RSO of Energy Technologies Inc.

Course Content: Training consisted of 40 hours of classroom training and approximately 4 hours of homework assignments during the course. Training was performed in accordance with USNRC NUREG-1556, Volume 4.

Certificate of Completion

Christopher Hardy

has participated in and completed:

*Radiation Safety Officer Training
In accordance with
USNRC NUREG-1556, VOLUME 4*

Presented on: *June 06, 2019*



Energy Technologies Inc.
Knoxville, TN 37931

By:

A handwritten signature in black ink, appearing to read 'David K. Swindell', written over a horizontal line.

David Swindell
ETI Radiation Safety Officer

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10.3 Radiation Safety Program – Material Receipt and Accountability	<p>Physical inventories will be conducted every 6 months or at other intervals approved by the NRC to account for all sealed sources and devices received and possessed under the license.</p> <p style="text-align: center;">AND</p> <p>We will develop, implement, and maintain procedures for ensuring accountability of licensed materials at all times.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.4 Radiation Safety Program – Occupational Dose	<p>We will maintain, for inspection by the NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of the limits in 10 CFR 20.1502(a).</p> <p style="text-align: center;">OR</p> <p>We will provide and require the use of individual monitoring devices (dosimetry). All personnel dosimeters that require processing to determine the radiation dose will be processed and evaluated by a NVLAP-approved processor.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
10.5 Radiation Safety Program – Public Dose	The applicant is <i>not</i> required to submit a response to the public dose section in a license application. This matter will be examined during NRC inspections.	Need not be submitted with application.	
10.6 Radiation Safety Program – Operating, Emergency, and Security Procedures	<p>If the gauge meets one or more of the safety conditions specified in the "Discussion" part of Section 8.10.6, "Operating, Emergency, and Security Procedures," in NUREG-1556, Volume 4, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licenses," state the following: Operating, emergency, and security procedures will be developed, implemented, maintained, and distributed and will meet the criteria in Section 8.10.6, "Operating, Emergency, and Security Procedures," in NUREG-1556, Volume 4, Revision 1.</p> <p style="text-align: center;">OR</p> <p>If each gauge requested does not meet any of the safety conditions specified in the "Discussion" part of Section 8.10.6, "Operating, Emergency, and Security Procedures," in NUREG-1556, Volume 4, Revision 1, provide your operating, emergency, security, and lock-out (if applicable) procedures.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Procedures Attached

ITEM 10 – RADIATION SAFETY AND PROTECTION PROGRAM

Area and equipment surveys will be conducted at installation and six-month intervals to provide documented evidence that unmonitored individuals are not likely to receive a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20.

Gauge manufacturer or licensed contractor will conduct these surveys and provide documentation to the on-site Radiation Safety Officer. Cornerstone Minerals LLC will not provide dosimetry to site personnel.

In case of emergency, serious fire or explosion which could result in severe damage to the “nuclear gauge,” the following actions are to be taken:

1. Isolate the “nuclear gauge” to a minimum of 20 ft. by roping off the area or by other suitable means.
2. If possible, move the shutter control rod to the “OFF” position.
3. Limit access to the “nuclear gauge” (source housing) until a leak test and safety evaluation can be performed by a qualified person.
4. Keep personnel informed about the incident or emergency situation.
5. Obtain assurance from Cornerstone Minerals Radiation Safety Officer at (304) 320-9615.
6. Make the required notification pursuant to regulatory requirements if required.

Copies of emergency procedures shall be provided to all gauge users and posted at the job site.

Leak testing will be performed at 6-month intervals by Gauge Manufacturer or by some other individual specifically licensed to perform leak testing, or by use of a leak testing kit. Physical inventories and shutter tests will also be performed at 6-month intervals. If a leak test kit is used, the procedure specified in the leak test kit will be followed. Documentation of the Leak Tests, Physical Inventories, and Shutter checks will be maintained for a minimum of 3 years.

Installation, servicing, maintenance, nuclear gauge relocation or removal will be performed by manufacturer or by some other company specifically licensed to perform such services.

Radioactive material will be shipped directly from the supplier in a DOT approved container. Licensed personnel shall perform transfer to gauge. Documentation of Installation, Servicing, Relocation, and Decommissioning shall be maintained as long as the Radiation Program is still active.

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10.7 Radiation Safety Program – Leak Tests	<p>Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the SSD registration certificate. Leak tests will be performed by an organization licensed by the NRC or an Agreement State to provide leak testing services to other licensees; or using a leak test sample collection kit supplied by an organization licensed by the NRC or an Agreement State to provide leak test kits and/or sample analysis services to other licensees and according to the kit supplier's instructions. Records of leak test results will be maintained.</p> <p style="text-align: center;">OR</p> <p>We will implement the model leak test program in Appendix I of NUREG-1556, Volume 4, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licenses." Records of leak tests will be maintained.</p>	<input checked="checked" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> For this item, checking this box indicates that alternative equipment and/or procedures will be provided as part of the application and that records of leak tests will be maintained.
10.8 Radiation Safety Program – Maintenance	<p><u>ROUTINE MAINTENANCE</u> We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's or distributor's written recommendations and instructions.</p> <p><u>NONROUTINE MAINTENANCE OPERATIONS</u> The gauge manufacturer, distributor, or other person authorized by the NRC or an Agreement State will perform nonroutine operations such as installation, initial radiation survey, repair and maintenance of radiological safety components, relocation, replacement, alignment, removal from service, and disposal of sealed sources.</p>	<input checked="checked" type="checkbox"/> <input checked="checked" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> The information listed in Appendix J of this NUREG, "Information Needed to Support Applicant's Request to Perform Nonroutine Operations," is attached.
10.9 Radiation Safety Program – Transportation	<p>The applicant is <i>not</i> required to submit a response about transportation during the licensing process. The NRC will review this issue during inspection.</p>	Need not be submitted with application.	

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10.10 Radiation Safety Program – Fixed Gauges Used at Temporary Job Sites	<p>We will not use fixed gauges at temporary jobsites.</p> <p style="text-align: center;">OR</p> <p>We will address the use of fixed gauges at temporary jobsites in our operating, emergency, and security procedures developed in accordance with the Criteria in Section 8.10.6, "Operating, Emergency, and Security Procedures," of NUREG-1556, Volume 4, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licenses." Copies of these procedures will be provided to all gauge users and will be available at all temporary jobsites.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
10.11 Radiation Safety Program – Security Program for Category 1 and Category 2 Radioactive Material	The applicant is <i>not</i> required to submit a response to the security program section in a license application. This matter will be examined during NRC inspections.	Need not be submitted with application.	
11. Waste Management – Gauge Disposal & Transfer	The applicant is <i>not</i> required to submit a response about waste management during the licensing process; however, the licensee should establish and include gauge transfer and waste disposal procedures in its radiation protection program.	Need not be submitted with application.	

Sent: Tuesday, July 2, 2019 6:50:50 PM
To: dblacha@outlook.com
Subject: Fwd: NRC Radioactive Materials License

Get [Outlook for Android](#)

From: Reichard, Michael <Michael.Reichard@nrc.gov>
Sent: Monday, July 1, 2019 3:52:53 PM
To: Chris Hardy
Cc: Wardrobe, Leonardo
Subject: NRC Radioactive Materials License

License No.: 47-35554-01
Docket No: 030-39181
Control No: 612472
Licensee Name: Cornerstone Minerals Prep Plant

Mr. Hardy,

This refers to your request for an NRC Radioactive Materials License dated June 7, 2019. In order to continue our review of your request, the following additional information is needed:

As we discussed by telephone, please submit the license application checklist found in Appendix B of NUREG 1556, Vol. 4 Rev. 1, found at <https://www.nrc.gov/docs/ML1618/ML16188A048.pdf>. To best ensure we get all of the information and commitments that we require, please print the checklist and complete it by hand. Please submit it to us under a letter signed by an official of the company. Also, please reference Control No. 612472 in the title of your response. Your reply must be an originally signed and dated letter. The letter may be scanned and submitted as a pdf document attached to an email to michael.reichard@nrc.gov; or it may be transmitted by facsimile to (610) 337-5269; or it may be sent by regular mail. If we do not receive a reply from you within 30 calendar days from the date of this e-mail, we will assume that you do not wish to pursue your application.

If you have any questions, feel free to contact me with any of the contact information below.

Michael Reichard
Health Physicist
Division of Nuclear Materials Safety
United States Nuclear Regulatory Commission
Michael.reichard@nrc.gov
610-337-6945 (o)
610-420-5338 (c)



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