

Greenbrier Minerals
Lower War Eagle
109-00198
G10-D131B
Dan Roberts

GREENBRIER MINERALS, LLC

**LOWER WAR EAGLE
PROCESSING FACILITY
ID NO. 109-00198**

**GENERAL PERMIT MODIFICATION
G10-D131A**

DIVISION OF AIR QUALITY

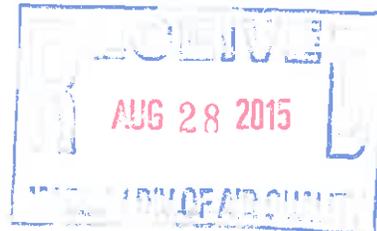
Submittal: August 2015

312 Justice Avenue
Logan, WV 25601

Phone (304) 752-8320
Fax (304) 752-7488

August 27, 2015

**Mr. William F. Durham, Director
Division of Air Quality
601 57th Street SE
Charleston, WV 25304**



**RE: Greenbrier Minerals, LLC
General Permit Modification
ID# 109-00198**

Dear Mr. Durham:

On behalf of Greenbrier Minerals, I am submitting the enclosed General Permit Modification Application for the Lower War Eagle Facility for your review and approval. The submittal fee of \$500 and additional copies are also included. NSPS fees were paid previously and no new equipment is being added.

The application addresses the deletion of one screen and the expansion of the existing raw coal stockpile area.

If additional information or clarification is needed, please contact me at the Logan address listed above or call 304-752-8320.

Sincerely,

**Donna J. Toler
Air Quality Project Manager**

donnatoler@suddenlink.net

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WVDAQ Registration Application

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WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th St East
 Charleston, WV 25304
 Phone: (304) 926-0475 • www.wvdep.org

APPLICATION FOR GENERAL PERMIT REGISTRATION
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE
 A STATIONARY SOURCE OF AIR POLLUTANTS

PLEASE CHECK ALL THAT APPLY (IF KNOWN):
 CONSTRUCTION MODIFICATION RELOCATION
 ADMINISTRATIVE UPDATE AFTER-THE-FACT

FOR AGENCY USE ONLY: PLANT I.D. # _____
 PERMIT # _____ PERMIT WRITER: _____

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:

- G10-D – Coal Preparation and Handling
- G20-B – Hot Mix Asphalt
- G30-B – Natural Gas Compressor Stations
- G40-B – Nonmetallic Minerals Processing
- G50-B – Concrete Batch

SECTION I. GENERAL INFORMATION

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE): GREENBRIER MINERALS, LLC	2. FEDERAL EMPLOYER ID NO. (FEIN): 26-1413283
--	---

3. APPLICANT'S MAILING ADDRESS:
**PO BOX 446
 MAN, WV 25635**

5. IF APPLICANT IS A SUBSIDIARY CORPORATION, PLEASE PROVIDE THE NAME OF PARENT CORPORATION:
SAME AS ABOVE

6. WV BUSINESS REGISTRATION. IS THE APPLICANT A RESIDENT OF THE STATE OF WEST VIRGINIA? YES NO
 ⇨ IF YES, PROVIDE A COPY OF THE CERTIFICATE OF INCORPORATION / ORGANIZATION / LIMITED PARTNERSHIP (ONE PAGE) INCLUDING ANY NAME CHANGE AMENDMENTS OR OTHER BUSINESS CERTIFICATE AS ATTACHMENT A.
 ⇨ IF NO, PROVIDE A COPY OF THE CERTIFICATE OF AUTHORITY / AUTHORITY OF L.L.C. / REGISTRATION (ONE PAGE) INCLUDING ANY NAME CHANGE AMENDMENTS OR OTHER BUSINESS CERTIFICATE AS ATTACHMENT A.

SEE ATTACHMENT A

SECTION II. FACILITY INFORMATION

<p>7. TYPE OF PLANT OR FACILITY (STATIONARY SOURCE) TO BE CONSTRUCTED, MODIFIED, RELOCATED OR ADMINISTRATIVELY UPDATED (E.G., COAL PREPARATION PLANT, PRIMARY CRUSHER, ETC.):</p> <p>Modification to delete screen and expand stockpile area</p>	<p>8. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE FOR THE FACILITY:</p> <p align="center">1222</p>
<p>9A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY):</p> <p align="center">109-00198</p>	<p>10A. LIST ALL CURRENT 45CSR13 AND 45CSR30 (TITLE V) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR EXISTING FACILITY ONLY):</p> <p align="center">G10-D131A</p>

PRIMARY OPERATING SITE INFORMATION

<p>11A. NAME OF PRIMARY OPERATING SITE:</p> <p>LOWER WAR EAGLE FACILITY</p>	<p>12A. MAILING ADDRESS OF PRIMARY OPERATING SITE:</p> <p align="center">SAME AS PERMITTEE</p>	
<p>13A. DOES THE APPLICANT OWN, LEASE, HAVE AN OPTION TO BUY, OR OTHERWISE HAVE CONTROL OF THE PROPOSED SITE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>⇒ IF YES, PLEASE EXPLAIN: OWNER/OPERATOR</p> <p>⇒ IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.</p>		
<p>14A. ⇒ FOR MODIFICATIONS or ADMINISTRATIVE UPDATES, AT AN EXISTING FACILITY, PLEASE PROVIDE DIRECTIONS TO THE PRESENT LOCATION OF THE FACILITY FROM THE NEAREST STATE ROAD;</p> <p>⇒ FOR CONSTRUCTION OR RELOCATION PERMITS, PLEASE PROVIDE DIRECTIONS TO THE PROPOSED NEW SITE LOCATION FROM THE NEAREST STATE ROAD.</p> <p>⇒ <u>From Charleston, follow US119S to Route 10 Intersection, proceed toward Man/ Pineville on Route 10 – the facility is situated beside the road approximately 3 miles after crossing Wyoming County Line.</u></p> <p>_____</p> <p>INCLUDE A MAP AS ATTACHMENT F.</p>		
<p>15A. NEAREST CITY OR TOWN:</p> <p align="center">Cyclone</p>	<p>16A. COUNTY: Wyoming</p>	
<p>17A. UTM NORTHING (KM):</p> <p align="center">4176.3958</p>	<p>18A. UTM EASTING (KM):</p> <p align="center">435.8958</p>	<p>19A. UTM ZONE:</p> <p align="center">17</p>

1ST ALTERNATE OPERATING SITE INFORMATION

11B. NAME OF PRIMARY OPERATING SITE: _____ _____	12B. MAILING ADDRESS OF PRIMARY OPERATING SITE: _____ _____
--	---

13B. DOES THE APPLICANT OWN, LEASE, HAVE AN OPTION TO BUY, OR OTHERWISE HAVE CONTROL OF THE *PROPOSED SITE*?
 YES NO

⇨ IF YES, PLEASE EXPLAIN: _____

⇨ IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.

14B. ⇨ FOR MODIFICATIONS or ADMINISTRATIVE UPDATES, AT AN EXISTING FACILITY, PLEASE PROVIDE DIRECTIONS TO THE *PRESENT LOCATION* OF THE FACILITY FROM THE NEAREST STATE ROAD;
 ⇨ FOR CONSTRUCTION OR RELOCATION PERMITS, PLEASE PROVIDE DIRECTIONS TO *THE PROPOSED NEW SITE LOCATION* FROM THE NEAREST STATE ROAD.

INCLUDE A MAP AS ATTACHMENT F.

15B. NEAREST CITY OR TOWN:	16B. COUNTY:	
_____	_____	
17B. UTM NORTHING (KM):	18B. UTM EASTING (KM):	19B. UTM ZONE:
_____	_____	_____

2ND ALTERNATE OPERATING SITE INFORMATION

11C. NAME OF PRIMARY OPERATING SITE: _____ _____	12C. MAILING ADDRESS OF PRIMARY OPERATING SITE: _____ _____
--	---

13C. DOES THE APPLICANT OWN, LEASE, HAVE AN OPTION TO BUY, OR OTHERWISE HAVE CONTROL OF THE *PROPOSED SITE*?
 YES NO

⇨ IF YES, PLEASE EXPLAIN: _____

⇨ IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.

14C. ⇨ FOR MODIFICATIONS or ADMINISTRATIVE UPDATES, AT AN EXISTING FACILITY, PLEASE PROVIDE DIRECTIONS TO THE PRESENT LOCATION OF THE FACILITY FROM THE NEAREST STATE ROAD; ⇨ FOR CONSTRUCTION OR RELOCATION PERMITS, PLEASE PROVIDE DIRECTIONS TO THE PROPOSED NEW SITE LOCATION FROM THE NEAREST STATE ROAD.		
<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>		
INCLUDE A MAP AS ATTACHMENT F.		
15C. NEAREST CITY OR TOWN:	16C. COUNTY:	
17C. UTM NORTHING (KM):	18C. UTM EASTING (KM):	19C. UTM ZONE:
20. PROVIDE THE DATE OF ANTICIPATED INSTALLATION OR CHANGE: Upon Permit Approval ⇨ IF THIS IS AN AFTER-THE-FACT PERMIT APPLICATION, PROVIDE THE DATE UPON WHICH THE PROPOSED CHANGE DID HAPPEN: ___/___/___		21. DATE OF ANTICIPATED START-UP IF REGISTRATION IS GRANTED: Upon Permit Approval
22. PROVIDE MAXIMUM PROJECTED OPERATING SCHEDULE OF ACTIVITY/ ACTIVITIES OUTLINED IN THIS APPLICATION: HOURS PER DAY <u>24</u> DAYS PER WEEK <u>7</u> WEEKS PER YEAR <u>52</u> PERCENTAGE OF OPERATION <u>100</u>		

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

**ISSUED TO:
GREENBRIER MINERALS, LLC
ANJEAN RD
RUPERT, WV 25984-0000**

BUSINESS REGISTRATION ACCOUNT NUMBER: 1032-1821

This certificate is issued on: 06/15/2011

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued.
This certificate shall be permanent until cessation of the business for which the certificate of registration
was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new
certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of
this certificate displayed at every job site within West Virginia.

ATTACHMENT B

DETAILED PROCESS DESCRIPTION

The Lower War Eagle Facility will be located in an urban area near Cyclone in Wyoming County, WV.

Run of the mine raw coal transfers to belt conveyor BC-01(PE) @ TP-01(TC-FE); to belt conveyor BC-02(PE) @ TP-03(TC-FE) for delivery to open stockpile OS-01(SW-WS) @ TP-04(TC-PE). A stacking tube will control the load-in process. The raw coal material will then be reclaimed underpile to belt BC-03(PE) @ TP-05(LO-UC) and transferred through a series of partially-enclosed belt conveyors BC-04(PE) thru BC-08(PE) @ TP-06(TC-FE) thru TP-11(TC-FE) to an underground deep mine belt system. A dozer will be used to truncate the stockpile and by doing so will enlarge the stockpile area.

Coal will transfer from the stockpile to truck @ TP-12(LO-MDH) in a paved area. The paved haulroad is less than 0.25 miles round trip.

There are no VOC's or HAP's associated with this facility.

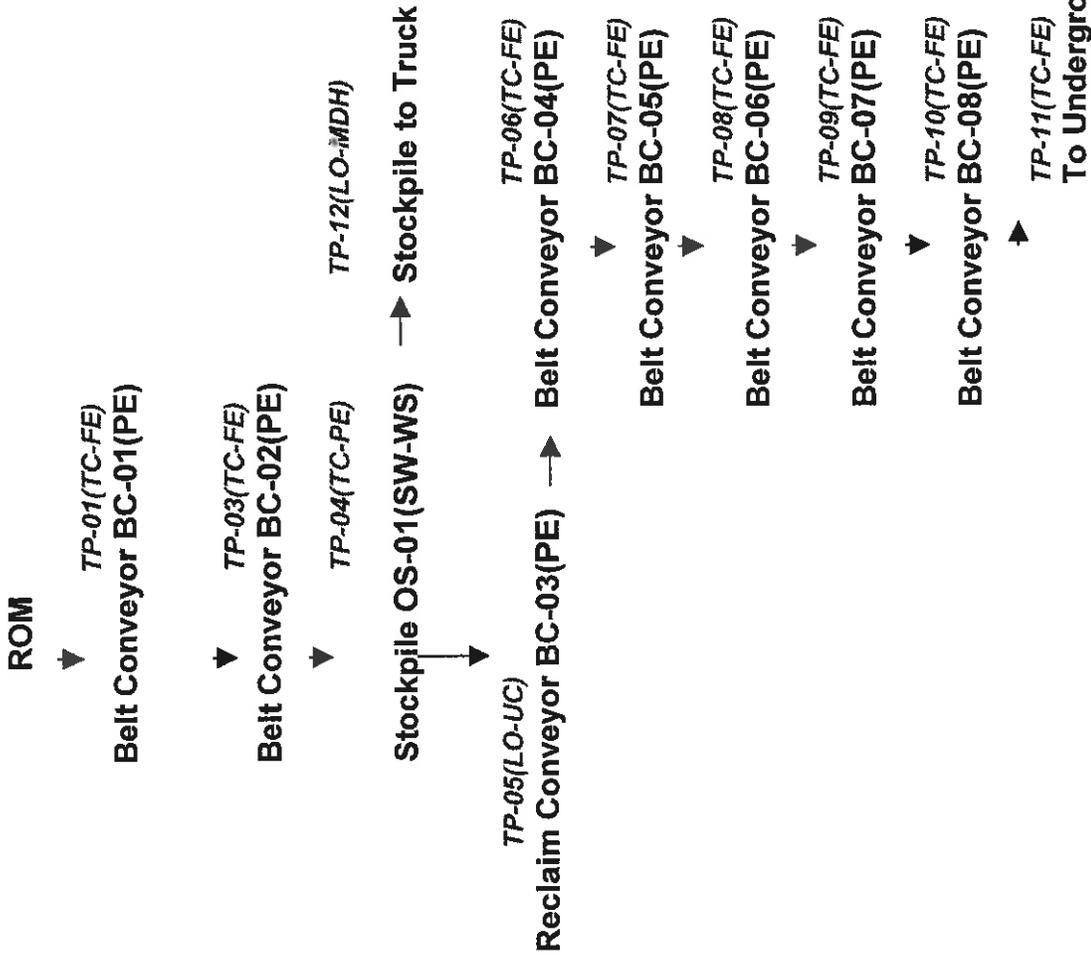
ATTACHMENT C

DESCRIPTION OF FUGITIVE EMISSIONS

Potential sources of fugitive particulate emissions for this facility include emissions, which are not captured by pollution control equipment and emissions from open stockpiles and vehicular traffic on paved/unpaved haulroads and work areas. The haulroads and work areas will be controlled by water truck in accordance with section E.6.c.i. of the General Permit.

An additive to prevent freezing will be utilized in the winter months when freezing conditions are present. New course rock base material will be added to unpaved access roads as needed.

**GREENBRIER MINERALS, LLC
MATERIAL FLOW DIAGRAM
LOWER WAR EAGLE DEEP MINE SYSTEM**



ID	Rate	Thruput
BC-01	1000	8,760,000
BC-02	1000	8,760,000
BC-03	1000	8,760,000
BC-04	1000	8,760,000
BC-05	1000	8,760,000
BC-06	1000	8,760,000
BC-07	1000	8,760,000
BC-08	1000	8,760,000

This document was too large to scan. If interested in viewing please contact: depfoia@wv.gov or

West Virginia Department of Environmental Protection Public Information Office

FOIA Request

601 57th St. S.E.

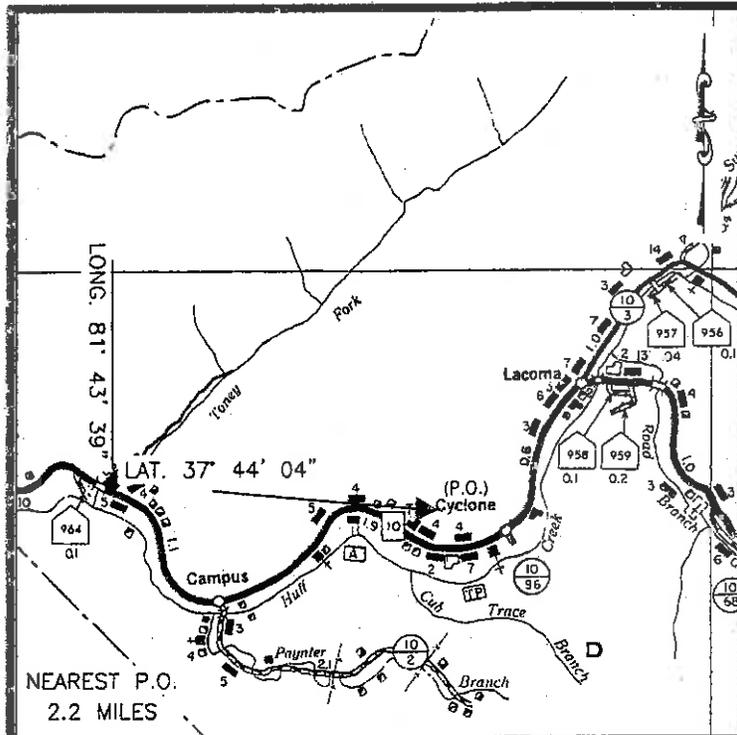
Charleston, WV 25304.

The fax number is 304-926-0447.

Thank you.



west virginia department of environmental protection



NEAREST P.O.
2.2 MILES

LOCATION MAP

PERMIT NO. U-4002-99 / NPDES NO. WV1018728

GENERAL HIGHWAY MAP

SEE USGS - TOPO MAP (7.5' SERIES)

QUAD: OCEANA AND LORADO

DISTRICT: OCEANA / COUNTIES: WYOMING

NEAREST PO: CYCLONE

RECEIVING STREAM: TONEY FORK OF / AND
HUFF CREEK OF THE GUYANDOTTE RIVER

SCALE: 1" = 1 MILE

STORAGE ACTIVITY AFFECTED SOURCE SHEET

Source Identification Number ¹	OS-01				
Type of Material Stored ²	Raw Coal				
Average Moisture Content (%) ³	6				
Maximum Yearly Storage Throughput (tons) ⁴	8,760,000				
Maximum Storage Capacity (tons) ⁵	85,000				
Maximum Base Area (ft ²) ⁶	188,869				
Maximum Pile Height (ft) ⁷	75'				
Method of Material Load-in ⁸	SS				
Load-in Control Device Identification Number ⁹	TC-PE(ST)				
Storage Control Device Identification Number ⁹	SW-WS				
Method of Material Load-out ⁸	UC/FE				
Load-out Control Device Identification Number ⁹	LO-UC LO-MDH				

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS Bin or Storage Silo (full enclosure)	E3 Enclosure (three sided enclosure)
OS Open Stockpile	SB Storage Building (full enclosure)
SF Stockpiles with wind fences	OT Other

2. Describe the type of material stored or stockpiled (e.g. clean coal, raw coal, refuse, etc).

3. Enter the average percent moisture content of the stored material.

4. Enter the maximum yearly storage throughput for each storage activity.

5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)

6. For stockpiles, enter the maximum stockpile base area.

7. For stockpiles, enter the maximum stockpile height.

8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS Clamshell	SS Stationary Conveyor/Stacker
FC Fixed Height Chute from Bins	ST Stacking Tube
FE Front Endloader	TC Telescoping Chute from Bins
MC Mobile Conveyor/Stacker	TD Truck Dump
UC Under-pile or Under-Bin Reclaim Conveyor	PC Pneumatic Conveyor/Stacker
RC Rake or Bucket Reclaim Conveyor	OT Other

ATTACHMENT H

BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET
Not applicable for this facility

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number:
2. Manufacturer's name and model identification:
3. Number of compartments in baghouse:
4. Number of compartments online during normal operation and conditions:
5. Gas flow rate into baghouse: _____ ACFM @ _____ °F and _____ PSIA
6. Total cloth area: _____ ft²
7. Operating air to cloth ratio: _____ ft/min
8. Filter media type: _____
9. Stabilized static pressure drop across baghouse: _____ inches H₂O
10. Baghouse operation is:
 - Continuous Automatic Intermittent
11. Method used to clean bags:
 - Shaker Pulse jet Reverse jet Other
12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:

Entering baghouse: _____ lb/hr and _____ grains/ACF

Exiting baghouse: _____ lb/hr and _____ grains/ACF
13. Guaranteed minimum baghouse collection efficiency: _____ %
14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:
15. Describe the method of disposal for the collected material:

EMISSIONS SUMMARY

Name of applicant: Lower War Eagle
 Name of plant: Deep Mine System

Particulate Matter or PM (for 45CSR14 Major Source Determination)

Uncontrolled PM		Controlled PM	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	1.21	5.29	0.30	1.32
<i>Unpaved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
<i>Paved Haulroad Emissions</i>	15.85	69.40	4.75	20.82
Fugitive Emissions Total	17.05	74.69	5.06	22.14

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	0.00	0.00	0.00	0.00
<i>Transfer Point Emissions</i>	8.67	37.95	2.60	11.39
Point Source Emissions Total*	8.67	37.95	2.60	11.39

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

Facility Emissions Total	25.72	112.65	7.66	33.53
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 11.39**
 (Based on Point Source Total controlled PM TPY emissions from above) ENTER ON LINE 26 OF APPLICATION

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

Uncontrolled PM-10		Controlled PM-10	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	0.57	2.49	0.14	0.62
<i>Unpaved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
<i>Paved Haulroad Emissions</i>	3.07	13.47	0.92	4.04
Fugitive Emissions Total	3.64	15.96	1.06	4.66

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	0.00	0.00	0.00	0.00
<i>Transfer Point Emissions</i>	4.10	17.95	1.23	5.39
Point Source Emissions Total*	4.10	17.95	1.23	5.39

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

Facility Emissions Total	7.74	33.91	2.29	10.05
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EMISSION FACTORS

source: Air Pollution Engineering Manual and References
(lb/ton of material throughput)

PM	
Primary Crushing	0.02
Tertiary Crushing	0.06
Screening	0.1

PM-10	
Primary Crushing	0.0094
Tertiary Crushing	0.0262
Screening	0.047

For lb/hr $[\text{lb/ton}] \cdot [\text{ton/hr}] = [\text{lb/hr}]$

For Tons/year $[\text{lb/ton}] \cdot [\text{ton/yr}] \cdot [\text{ton}/2000\text{lb}] = [\text{ton/yr}]$

3. Emissions From WIND EROSION OF STOCKPILES

Stockpile ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
OS01	1.208	5.292	0.302	1.323	0.568	2.487	0.142	0.622
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	1.208	5.292	0.302	1.323	0.568	2.487	0.142	0.622

Source:

Air Pollution Engineering Manual

Storage Pile Wind Erosion (Active Storage)

$$E = 1.7 * [s/1.5] * [(365-p)/235] * [f/15] = (\text{lb/day/acre})$$

Where:

s =	silt content of material
p =	number of days with >0.01 inch of precipitation per year
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height

Emission Factors

For PM $E = (1.7) * ((\text{Inputs} \backslash F147) / 1.5) * ((365 - \text{Inputs} \backslash I139) / 235) * ((\text{Inputs} \backslash I140) / 15)$

For PM-10 $E = 0.47 * (1.7) * ((\text{Inputs} \backslash F147) / 1.5) * ((365 - \text{Inputs} \backslash I139) / 235) * ((\text{Inputs} \backslash I140) / 15)$

For lb/hr $[\text{lb/day/acre}] * [\text{day}/24\text{hr}] * [\text{base area of pile (acres)}] = \text{lb/hr}$

For Ton/yr $[\text{lb/day/acre}] * [365\text{day/yr}] * [\text{Ton}/2000\text{lb}] * [\text{base area of pile (acres)}] = \text{Ton/yr}$

4. Emissions From UNPAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.2 Unpaved Roads

Emission Estimate For Unpaved Haulroads at Industrial Sites (equation 1)

$$E = k \cdot (s/12)^a \cdot (W/3)^b = \text{lb/vmt}$$

Where:

		PM	PM-10
k =	particle size multiplier	4.90	1.50
a =	empirical constant	0.7	0.9
b =	empirical constant	0.45	0.45

Emission Factors

For PM $E = ((\$35) \cdot (((\text{Inputs!}\$163)/12)^{(\$36)}) \cdot (((\text{Inputs!}H171)/3)^{(\$37)}))$

For PM-10 $E = ((\$J35) \cdot (((\text{Inputs!}\$163)/12)^{(\$J36)}) \cdot (((\text{Inputs!}H171)/3)^{(\$J37)}))$

For lb/hr $(\text{lb/vmt}) \cdot (\text{miles per trip}) \cdot (\text{Max trips per hour})$

For Ton/yr $(\text{lb/vmt}) \cdot (\text{miles per trip}) \cdot (\text{Max trips per year}) \cdot (1/2000)$

5. Emissions From INDUSTRIAL PAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	15.85	69.40	4.75	20.82	3.07	13.47	0.92	4.04
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	15.85	69.40	4.75	20.82	3.07	13.47	0.92	4.04

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.1 PAVED ROADS

Emission Estimate For Paved Haulroads

$$E = [k * (sL/2)^{0.65} * (W/3)^{1.5} - C] * (1 - (P/4 * N)) = \text{lb / Vehicle Mile Traveled (VMT)}$$

Where:

		PM	PM-10
k =	particle size multiplier	0.082	0.016
sL =	road surface silt loading, (g/ft ²)	1	
P =	number of days per year with precipitation >0.01 inch	157	
N =	number of days in averaging period	365	
C =	factor for exhaust, brake wear and tire wear	0.0047	0.0047

Emission Factors

For PM $E = (\$34 * ((\$35/2)^{0.65} * ((\text{Inputs!G190}/3)^{1.5}) - (\$38)) * (1 - ((\text{Inputs!G190}/3) * N))$

For PM-10 $E = (\$34 * ((\$35/2)^{0.65} * ((\text{Inputs!G190}/3)^{1.5}) - (\$38)) * (1 - ((\text{Inputs!G190}/3) * N))$

For lb/hr $(\text{lb/vmt}) * (\text{miles per trip}) * (\text{Max trips per hour})$

For Ton/yr $(\text{lb/vmt}) * (\text{miles per trip}) * (\text{Max trips per year}) * (1/2000)$

Legal Advertisement

**AIR QUALITY PERMIT NOTICE
Notice of Application**

Notice is given that Greenbrier Minerals, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit Modification to a deep mine coal processing facility located near Cyclone in Wyoming County, West Virginia. The facility coordinates are as follows: latitude 37.734444 longitude -81.727500.

The applicant estimates the decrease in the potential to discharge the following Regulated Air Pollutants will be 44 tons of particulate matter baseline emissions per year, 21 tons of point source emissions particulate matter less than 10 microns total per year, and 43 tons of the controlled facility emission total per year.

Startup of operation is planned to begin upon permit approval. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1210, during normal business hours.

Dated this the 28th day of August 2015

By: Greenbrier Minerals, LLC
Robert L. Cline
Authorized Agent
PO Box 446
Man, WV 25635

ATTACHMENT K

**ELECTRONIC SUBMITTAL DISC LOCATED IN ORIGINAL
APPLICATION**

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

I certify that I am the Owner and Proprietor

is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Chief of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature _____

(please use blue ink)

Responsible Official

Date

Name & Title: **ROBERT L. CLINE, AUTHORIZED AGENT**

(please print or type)

Signature _____

(please use blue ink)

Authorized Representative (If applicable)

Date

Applicant's Name: **Greenbrier Minerals, LLC**

Phone **304-392-1000**

Email : contact – Ken Job, PE – ken.job@buffaloenergydivision.com

APPOINTMENT OF AUTHORIZED AGENT

KNOW ALL MEN BY THESE PRESENTS, that GREENBRIER MINERALS, LLC, a West Virginia limited liability company (the "Company"), hereby appoints **ROBERT CLINE**, to be its authorized agent, to sign for and on behalf of the Company all coal mining related permit applications and other permit-related documents for the Company including permits required by state and/or federal law. This authority shall become effective with execution of this document.

GREENBRIER MINERALS, LLC

By: Coronado Coal, LLC
Its: Manager

By: 
James I. Campbell
Its: President

STATE OF WEST VIRGINIA,
COUNTY OF Greenbrier, to wit:

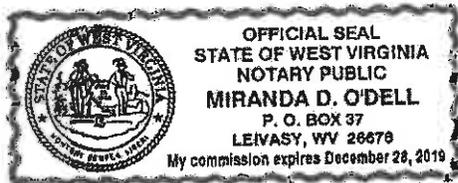
I, Miranda D. O'Dell, a Notary Public in and for the state and county aforesaid, do hereby certify that **JAMES I. CAMPBELL**, as President of Coronado Coal, LLC, the Manager of Greenbrier Minerals, LLC, has signed and acknowledged the foregoing document this 13 day of June, 2013, before me, in my said County.

Given under my hand this 13th day of June, 2013.

My commission expires: December 28, 2019.

Miranda D. O'Dell
Notary Public

(SEAL)



SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

PLEASE CHECK ALL ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

Please See the appropriate reference document for an explanation of the attachments listed below.

- ATTACHMENT A : CURRENT BUSINESS CERTIFICATE
- ATTACHMENT B: PROCESS DESCRIPTION
- ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS
- ATTACHMENT D: PROCESS FLOW DIAGRAM
- ATTACHMENT E: PLOT PLAN
- ATTACHMENT F: AREA MAP
- ATTACHMENT G: AFFECTED SOURCE SHEETS
- ATTACHMENT H: BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET
- ATTACHMENT I: EMISSIONS CALCULATIONS
- ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT
- ATTACHMENT K: ELECTRONIC SUBMITTAL DISKETTE
- CERTIFICATION OF INFORMATION
- APPLICATION FEE

PLEASE MAIL AN ORIGINAL AND TWO COPIES OF THE COMPLETE GENERAL PERMIT REGISTRATION APPLICATION WITH THE SIGNATURE(S) TO THE DAQ PERMITTING SECTION AT THE ADDRESS SHOWN ON THE FRONT PAGE. PLEASE DO NOT FAX PERMIT APPLICATIONS. FOR QUESTIONS REGARDING APPLICATIONS OR WEST VIRGINIA AIR POLLUTION RULES AND REGULATIONS PLEASE CALL (304) 926-3727.