

February 25, 2016

Beverly D. McKeone  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57th Street, SE,  
Charleston, WV 25304



SUBJECT: Mountain State Carbon LLC - Follansbee, WV  
Title V Operating Permit No.: R30-00900002-2010  
45CSR13 (Regulation 13) and Title V Modification Application for  
Order No.: CO-SIP-C-2015-14 [SO<sub>2</sub> SIP Consent Order]

Dear Ms. McKeone:

Mountain State Carbon, LLC (MSC) operates a metallurgical coke manufacturing facility in Follansbee, West Virginia under the Title V operating permit number referenced above. The enclosed application is in response to the sulfur dioxide (SO<sub>2</sub>) consent order also referenced above. The Brooke County area where MSC is located has been designated as non-attainment for SO<sub>2</sub> which resulted in the development of Section II. Order for Compliance requirements. The details of the emissions unit-specific SO<sub>2</sub> requirements are provided in the consent order and must be incorporated under the state permitting umbrella. In addition to the incorporation of Section II. Order for Compliance items, MSC is also requesting to incorporate by reference here, into the Title V operating permit, the four 45CSR13 (Regulation 13) administrative updates that were submitted in July 2015 and issued by the WV DEP, DAQ in September 2015.

First, the consent order Section II. Order for Compliance conditions to be incorporated as a Regulation 13 permit and Title V modification include:

1. Coke Oven Gas (COG) Combustion Sources,
2. Pushing Emissions Control Sources,
3. Acid Plant Tail Gas Scrubber, and
4. Maintenance Outages.

Second, emissions units that were issued Regulation 13 administrative updates in September 2015 and that are requested to be incorporated into the Title V operating permit include:

- R13-1939B (administrative update regarding changes to language related to flare),
- R13-2591E (administrative update regarding changes to text to clarify averaging time),
- R13-2632A (administrative update correcting typographical error),
- R13-2548B (administrative update correcting typographical error),
- R13-2798 (inactive source/obsolete permit), and
- R13-1652A (administrative update for coal tar loading station, issuance pending).

Enclosed are two paper copies (one with Responsible Official original signature) and two CDs of the permit application package. Each copy contains a Table of Contents, WV DEP, DAQ application forms, supporting documentation, the check (or a photocopy) for \$1,000 for the application fee as per 45CSR22 for a modification permit and Title V revision, and an Appendix with applicable 45CSR13 permits to be incorporated into the Title V application.

If you need further clarification or information on these requested revisions, please contact me by phone at (304) 527-5676, or via email at [Patrick.Smith@mscarbonllc.com](mailto:Patrick.Smith@mscarbonllc.com). Thank you for working with MSC to expedite these revisions.

Sincerely,



Patrick J. Smith  
Environmental Manager

/Enclosures

cc: Ed Andrews, WVDEP, DAQ  
George Mesing, QSEM

MOUNTAIN STATE CARBON, LLC – SO<sub>2</sub> SIP CONSENT ORDER PERMIT APPLICATION  
FEBRUARY 2016

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Application for NSR Permit and Title V Permit Revision

Sulfur Dioxide SIP Consent Order and 2015 Administrative Updates

Mountain State Carbon, LLC

Follansbee, WV

February 2016

	<p>WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  <b>DIVISION OF AIR QUALITY</b>          601 57<sup>th</sup> Street, SE          Charleston, WV 25304          (304) 926-0475  <a href="http://www.dep.wv.gov/daq">www.dep.wv.gov/daq</a></p>	<p><b>APPLICATION FOR NSR PERMIT</b>  <b>AND</b>  <b>TITLE V PERMIT REVISION</b>  <b>(OPTIONAL)</b></p>	
<p>PLEASE CHECK ALL THAT APPLY TO <b>NSR (45CSR13)</b> (IF KNOWN):</p> <p><input type="checkbox"/> CONSTRUCTION    <input checked="" type="checkbox"/> <b>MODIFICATION</b>    <input type="checkbox"/> RELOCATION  <input type="checkbox"/> CLASS I ADMINISTRATIVE UPDATE    <input type="checkbox"/> TEMPORARY  <input type="checkbox"/> CLASS II ADMINISTRATIVE UPDATE    <input type="checkbox"/> AFTER-THE-FACT</p>		<p>PLEASE CHECK TYPE OF <b>45CSR30 (TITLE V)</b> REVISION (IF ANY):</p> <p><input type="checkbox"/> ADMINISTRATIVE AMENDMENT    <input type="checkbox"/> MINOR MODIFICATION  <input checked="" type="checkbox"/> <b>SIGNIFICANT MODIFICATION</b></p> <p>IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS <b>ATTACHMENT S</b> TO THIS APPLICATION</p>	
<p><b>FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.</b></p>			
<p><b>Section I. General</b></p>			
<p>1. Name of applicant (as registered with the WV Secretary of State's Office):  <b>Mountain State Carbon, LLC</b></p>		<p>2. Federal Employer ID No. (FEIN):  <b>20-2840611</b></p>	
<p>3. Name of facility (if different from above):</p>		<p>4. The applicant is the:  <input type="checkbox"/> OWNER    <input type="checkbox"/> OPERATOR    <input checked="" type="checkbox"/> BOTH</p>	
<p>5A. Applicant's mailing address:  <b>1851 Main Street, Follansbee, WV 26037</b></p>		<p>5B. Facility's present physical address:  <b>1851 Main Street, Follansbee, WV 26037</b></p>	
<p>6. <b>West Virginia Business Registration.</b> Is the applicant a resident of the State of West Virginia?    <input type="checkbox"/> YES    <input checked="" type="checkbox"/> NO</p> <p>– If YES, provide a copy of the <b>Certificate of Incorporation/Organization/Limited Partnership</b> (one page) including any name change amendments or other Business Registration Certificate as <b>Attachment A</b>.</p> <p>– If NO, provide a copy of the <b>Certificate of Authority/Authority of L.L.C./Registration</b> (one page) including any name change amendments or other Business Certificate as <b>Attachment A</b>.</p>			
<p>7. If applicant is a subsidiary corporation, please provide the name of parent corporation: <b>AK Steel Corporation</b></p>			
<p>8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i>?    <input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p>– If YES, please explain:</p> <p>– If NO, you are not eligible for a permit for this source.</p>			
<p>9. Type of plant or facility (stationary source) to be <b>constructed, modified, relocated, administratively updated</b> or <b>temporarily permitted</b> (e.g., coal preparation plant, primary crusher, etc.): <b>Metallurgical coke manufacturing</b></p>			<p>10. North American Industry Classification System (NAICS) code for the facility:  <b>324199</b></p>
<p>11A. DAQ Plant ID No. (for existing facilities only):  <b>09-00002</b></p>		<p>11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):  <b>See Attachment A-1</b>  <b>(Attachment F from 2015 Title V renewal application)</b></p>	
<p><b>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</b></p>			

12A.		
<ul style="list-style-type: none"> <li>– For <b>Modifications, Administrative Updates or Temporary permits</b> at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road;</li> <li>– For <b>Construction or Relocation permits</b>, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a <b>MAP as Attachment B</b>.</li> </ul>		
One mile north of Follansbee on West Virginia Route 2, along the eastern bank of the Ohio River.		
12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
12.E. UTM Northing (KM): <b>4465.78</b>	12F. UTM Easting (KM): <b>533.41</b>	12G. UTM Zone: <b>17</b>
13. Briefly describe the proposed change(s) at the facility: Changes to incorporate August 2015 SO2 SIP Consent Order and September 2015 45CSR13 Administrative Updates (R13-1939B, R13-2591E, R13-2632A, R13-2548B, R13-2798, and R13-1652A) into Title V operating permit as per Attachments D, S, and supporting documentation.		
14A. Provide the date of anticipated installation or change: <b>01/01/2017</b> – If this is an <b>After-The-Fact</b> permit application, provide the date upon which the proposed change did happen: / /	14B. Date of anticipated Start-Up if a permit is granted: <b>01/01/2017</b>	
14C. Provide a <b>Schedule</b> of the planned <b>Installation of/Change</b> to and <b>Start-Up</b> of each of the units proposed in this permit application as <b>Attachment C</b> (if more than one unit is involved).		
15. Provide maximum projected <b>Operating Schedule</b> of activity/activities outlined in this application:		
Hours Per Day	Days Per Week	Weeks Per Year
16. Is demolition or physical renovation at an existing facility involved? <input type="checkbox"/> <b>YES</b> <input type="checkbox"/> <b>NO</b>		
17. <b>Risk Management Plans.</b> If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see <a href="http://www.epa.gov/ceppo">www.epa.gov/ceppo</a> ), submit your <b>Risk Management Plan (RMP)</b> to U. S. EPA Region III.		
18. <b>Regulatory Discussion.</b> List all Federal and State air pollution control regulations that you believe are applicable to the proposed process ( <i>if known</i> ). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance ( <i>if known</i> ). Provide this information as <b>Attachment D</b> .		
<b>Section II. Additional attachments and supporting documents.</b>		
19. Include a check payable to WVDEP – Division of Air Quality with the appropriate <b>application fee</b> (per 45CSR22 and 45CSR13).		
20. Include a <b>Table of Contents</b> as the first page of your application package.		
21. Provide a <b>Plot Plan</b> , e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as <b>Attachment E</b> (Refer to <b>Plot Plan Guidance</b> ) . – Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).		
22. Provide a <b>Detailed Process Flow Diagram(s)</b> showing each proposed or modified emissions unit, emission point and control device as <b>Attachment F</b> . No changes in process flow.		
23. Provide a <b>Process Description</b> as <b>Attachment G</b> . – Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).		

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**. No significant sources of fugitive SO<sub>2</sub>.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

Bulk Liquid Transfer Operations

Haul Road Emissions

Quarry

Chemical Processes

Hot Mix Asphalt Plant

Solid Materials Sizing, Handling and Storage Facilities

Concrete Batch Plant

Incinerator

Storage Tanks

Grey Iron and Steel Foundry

Indirect Heat Exchanger

General Emission Unit, specify: Boilers, Batteries, and By-products Acid Plant.

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

Absorption Systems

Baghouse

Flare

Adsorption Systems

Condenser

Mechanical Collector

Afterburner

Electrostatic Precipitator

Wet Collecting System

Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES  NO

➤ If YES, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's **"Precautionary Notice – Claims of Confidentiality"** guidance found in the **General Instructions** as **Attachment Q**.

### **Section III. Certification of Information**

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

Authority of Corporation or Other Business Entity

Authority of Partnership

Authority of Governmental Agency

Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R**.

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

**Certification of Truth, Accuracy, and Completeness**

I, the undersigned  **Responsible Official** /  **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

**Compliance Certification**

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE  DATE: 2/25/16  
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: **Lawrence R. Hermes** 35C. Title: **Vice President and CFO**

35D. E-mail: **Lawrence.hermes@mscarbonllc.com** 36E. Phone: **304-527-5624** 36F. FAX: **304-527-5635**

36A. Printed name of contact person (if different from above): **Patrick Smith** 36B. Title: **Environmental Manager**

36C. E-mail: **Patrick.Smith@mscarbonllc.com** 36D. Phone: **304-527-5676** 36E. FAX: **304-527-5635**

**PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate               | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet                       |
| <input checked="" type="checkbox"/> Attachment B: Map(s)                             | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s)                     |
| <input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s)            |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion              | <input type="checkbox"/> Attachment N: Supporting Emissions Calculations                           |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan                          | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s)              | <input checked="" type="checkbox"/> Attachment P: Public Notice                                    |
| <input type="checkbox"/> Attachment G: Process Description                           | <input type="checkbox"/> Attachment Q: Business Confidential Claims                                |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS)            | <input type="checkbox"/> Attachment R: Authority Forms   |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table               | <input checked="" type="checkbox"/> Attachment S: Title V Permit Revision Information              |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee  |

*Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.*

**FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:**

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
- NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
- Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
- NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
- NSR permit writer should notify a Title V permit writer of draft permit,
- Public notice should reference both 45CSR13 and Title V permits,
- EPA has 45 day review period of a draft permit.

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

**Attachment A**

**West Virginia Business Certificate  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV**

**February 2016**



## Certificate

*I, Natalie E. Tennant, Secretary of State of the  
State of West Virginia, hereby certify that*

**MOUNTAIN STATE CARBON, LLC**

was duly authorized under the laws of this state to transact business in West Virginia as a foreign limited liability company on July 11, 2005.

The company is filed as an at-will company, for an indefinite period.

I further certify that the LLC (PLLC) has not been revoked by the State of West Virginia nor has a Certificate of Cancellation been issued.

Therefore, I hereby issue this

### CERTIFICATE OF AUTHORIZATION

Validation ID:3WV2C\_6EN9H



*Given under my hand and the  
Great Seal of the State of  
West Virginia on this day of  
July 17, 2015*

*Natalie E. Tennant*

Secretary of State

**Attachment A-1**

**List of Current 45CSR13 and 45CSR30 Permits  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV**

**February 2016**

## Attachment A-1

MSC, LLC – FOLLANSBEE, WV

February 2016

<b>21. Active Permits/Consent Orders</b>		
<b>Permit or Consent Order Number</b>	<b>Date of Issuance MM/DD/YYYY</b>	<b>List any Permit Determinations that Affect the Permit (if any)</b>
R13-2591A (WV)	05/11/2005	Construction permit issued
R13-2591 (WV)	02/15/2005	Construction permit issued
Permit to install 06-07507 (Ohio EPA)	01/06/2005	Annual COG consumption limitation & sulfuric acid production limitation
R30-00900002-2010	01/19/2010	Current Operating Permit
R13-1939A	08/23/2003	Construction permit issued
Civil Action No. 5:93CV195	01/30/1996	Federally Enforceable Only
R13-1652	09/02/1994	Construction permit issued
CO-SIP-91-29	11/14/1991	Consent Order
R13-0090	07/12/1974	Construction permit issued
R13-2591D	04/18/2014	Construction permit issued
R13-2632	09/28/2005	Construction permit issued
R13-2772	09/17/2008	Construction permit issued
R13-2798	07/13/2009	Construction permit issued
R13-1939B	09/23/2015	Construction permit issued
R13-2591E	09/22/2015	Construction permit issued
R13-2632A	09/22/2015	Construction permit issued
R13-2548B	09/22/2015	Construction permit issued
R13-2798	07/29/2015	Inactive Source/Obsolete permit
R13-1652A	12/14/2015	Application for Administrative Update
	/ /	

**Attachment B**

**Site Location Map**

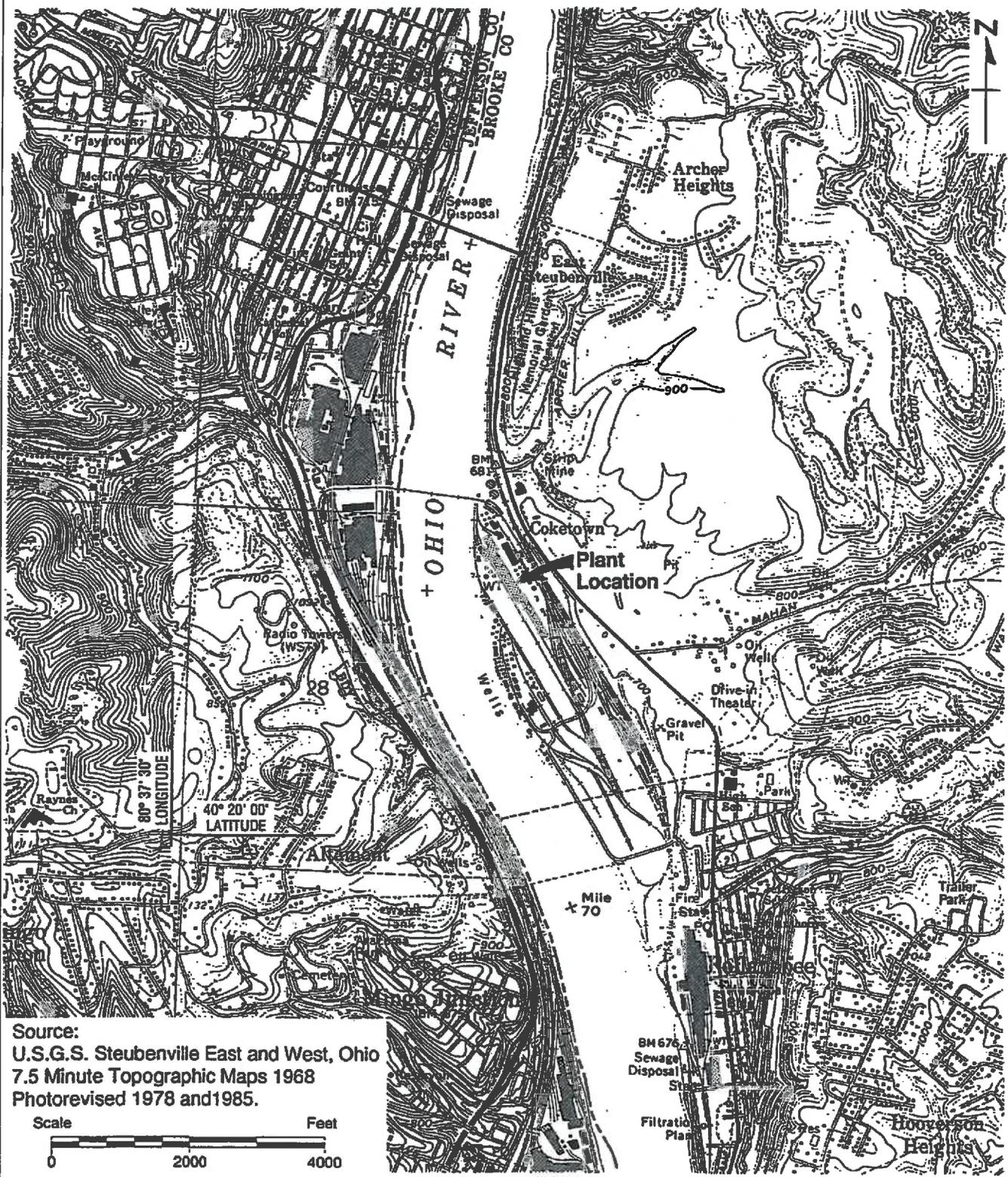
**Application for NSR Permit and Title V Permit Revision for:**

**Sulfur Dioxide SIP Consent Order**

**Mountain State Carbon, LLC**

**Follansbee, WV**

**February 2016**



Source:  
 U.S.G.S. Steubenville East and West, Ohio  
 7.5 Minute Topographic Maps 1968  
 Photorevised 1978 and 1985.



Mountain State Carbon, LLC Follansbee, West Virginia			
TITLE Attachment A: Topographic Map			
PREPARED BY QSEM SOLUTIONS, INC.			
DATE July 2014			
PROJECT 2041.012.00	DRAWING Topo Map	SHEET 1 of 1	REV 001

**Attachment C**

**Installation and Startup Schedule  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV**

**February 2016**

## Attachment C

## Schedule of Planned Changes – Mountain State Carbon, LLC

February 2016

Table 1 – Compliance Schedule<sup>1</sup>

Source <sup>2</sup> or Unit	Installation, Change, or Activity	Date
COG Combustion Sources	Operate and maintain a COG flow monitor on each source	By January 1, 2017
	Operate and maintain an H <sub>2</sub> S continuous emission monitor (CEM) for COG processed through the byproducts plant	
	Calculate and record daily average SO <sub>2</sub> emissions (lb/hr) for each source to demonstrate compliance with emission limits	
	Operate and maintain a data acquisition system for H <sub>2</sub> S and flow monitors on each source	
Pushing Emission Control Sources - #8 Battery	Conduct initial stack test to demonstrate compliance with SO <sub>2</sub> Emission Limit (lb/hr)	By June 30, 2016
Pushing Emission Control Sources - #1, 2, and/or 3 Batteries	Conduct initial stack test to demonstrate compliance with SO <sub>2</sub> Emission Limit (lb/hr)	Within 6 months of start-up or by June 30, 2016 (whichever is later)
Pushing Emission Control Sources	Submit stack test protocol(s) for approval	No less than 30 days prior to testing
	Submit stack test report(s)	Within 60 days after stack testing
Acid Plant Scrubber (Tail Gas Scrubber)	Conduct initial stack test to demonstrate compliance with SO <sub>2</sub> Emission Limit (lb/hr)	By June 30, 2016
	Submit stack test protocol for approval	No less than 30 days prior to testing
	Submit stack test report	Within 60 days after stack test
	Maintain minimum scrubber recirculation flow rate as established by stack testing	Within 90 days after stack test
Maintenance Outages	Conduct outages necessary for the maintenance, repair, and replacement of the affected equipment following all requirements in Section II.4 of the Consent Order	Starting January 1, 2017

**Attachment C (continued)**  
**Compliance Schedule – Mountain State Carbon, LLC**

Combined Boiler Stack	Complete engineering for the Combined Boiler Stack	By April 1, 2016
	Complete construction and commence operation of the Combined Boiler Stack	By January 1, 2017
All Affected Sources	Submit complete 45 CSR Section 13 and Title V permit modification applications incorporating Section II of the Consent Order	By February 26, 2016
COG Pipeline	Physically disconnect the COG pipeline leading to the Mingo Junction Energy Center	By January 1, 2017
All Affected Sources	Submit quarterly reports including daily average SO <sub>2</sub> (lb/hr) for each COG combustion source and daily 24-hour average scrubber circulation flow rate	Starting by April 30, 2017 for the 1 <sup>st</sup> quarter

<sup>1</sup>Schedule as required under Consent Order No. CO-SIP-C-2015-14

<sup>2</sup>Sources are further identified in Table 2

**Table 2 – Affected Sources and Equipment**

Source Group	Unit / ID
COG Combustion Sources	#1 Battery (P001-4) #2 Battery (P002-4) #3 Battery (P003-4) #8 Battery (P004-4) Combined Boilers #6, #7, #9, #10 (P017, P018, S1, S5)
Pushing Emission Control Sources	#1, 2, 3 Batteries Total (P001-5) #8 Battery (P004-5)
Acid Plant Scrubber	Acid Plant Tail Gas Scrubber (P021-19)
Maintenance Outages	COG H <sub>2</sub> S (Tail Gas) scrubber, acid plant, and associated ancillary equipment for COG desulfurization
Combined Boiler Stack	Combined #9 Boiler Stack and #10 Boiler Stack with the already combined #6 and #7 Boiler Stack

Attachment D

Regulatory Discussion and Consent Order Conditions  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

Mountain State Carbon, LLC  
 Application for NSR Permit and Title V Permit Revision for SO<sub>2</sub> SIP Consent Order  
 February 26, 2016

**Attachment D – Regulatory Discussion and Consent Order Conditions**

1. COG Combustion Sources

- a. Except during maintenance outages as defined in Section II.4.a, SO<sub>2</sub> emissions from COG combustion sources shall not exceed the following limitations:

<b>COG Combustion Sources</b>	<b>SO<sub>2</sub> in (lbs/hr) as a daily average</b>
#1 Battery (P001-4)	21.4
#2 Battery (P002-4)	21.4
#3 Battery (P003-4)	24.5
#8 Battery (P004-4)	115.4
Combined Boilers #6, #7, #9, #10 (P017, P018, S1, S5)	85.7

- b. MSC shall monitor the quantity of COG combusted in each COG combustion source and shall record the daily total of COG combusted at each COG combustion source. MSC shall continuously operate and maintain a flow monitor subject to applicable and appropriate methodologies of 40 CFR Part 60.
- c. MSC shall continuously monitor the concentration of H<sub>2</sub>S, in grains of H<sub>2</sub>S per 100 cubic feet of COG and shall record the daily average H<sub>2</sub>S concentration. The H<sub>2</sub>S monitor system shall extract COG from the main COG distribution pipeline after the COG has been processed through the byproducts plant. MSC shall continuously operate and maintain a H<sub>2</sub>S continuous emission monitor (CEM) subject to 40 CFR § 60 Appendix B, Performance Specification 7 and an annual relative accuracy testing audit (RATA) pursuant to the provisions of 40 CFR § 60, Appendix A, Method 15.

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**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

- d. MSC shall calculate and record the pounds of SO<sub>2</sub> per hour as a daily average for each COG combustion source, based on the following equation:

$$\begin{aligned}
 & \text{Concentration H}_2\text{S [grains /100 SCF COG]} \\
 & \quad \times \\
 & \quad \text{COG Combusted [MMSCF/Day]} \\
 & \quad \quad 24 \text{ [Hrs/Day]} \\
 & \quad \quad \times \\
 & \quad \quad 1.88 \text{ [lbs SO}_2\text{ / lbs H}_2\text{S]} \\
 & \quad \quad \times \\
 & \quad \quad 10,000 \text{ [100 SCF I MMSCF]} \\
 & \quad \quad \quad 7000 \text{ [grains/lb]} \\
 & = \text{lbs/hr SO}_2 \text{ (as daily average)}
 \end{aligned}$$

Where,

1.88 is the stoichiometric conversion of H<sub>2</sub>S to SO<sub>2</sub> at 100% combustion, based on a molecular weight of 64 for SO<sub>2</sub> and 34 for H<sub>2</sub>S 7000 is the unit conversion of grains to pounds [lbs] MMSCF represents million cubic feet of gas at standard temperature and pressure.

- e. MSC shall operate and maintain a data acquisition and monitoring system for the collection and archival of sulfur emissions data collected by the H<sub>2</sub>S and flow monitors on each COG combustion source.
- f. The requirements set forth in Section II.1 become effective on January 1, 2017.

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**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

**2. Pushing Emissions Control Sources**

- a. SO<sub>2</sub> emissions from pushing emissions control sources shall not exceed the following limitations:

<b>Pushing Emissions Control Sources</b>	<b>SO<sub>2</sub> in (lbs/hr)</b>
#1, 2, 3 Batteries Total (P001-5)	10.48
#8 Battery (P004-5)	15.72

- b. MSC will conduct a stack test for sulfur dioxide of the #8 Battery pushing emissions control (PEC) source by June 30, 2016. MSC will conduct a stack test for sulfur dioxide of the Nos. 1, 2, and/or 3 Batteries PEC source within 6 months of start-up of Nos. 1, 2, and/or 3 Batteries or by June 30, 2016 (whichever is later), utilizing 40 CFR § 60, Appendix A, Method 6 or equivalent. Thereafter, stack testing for each Battery PEC shall occur twice per Title V permit term.
- c. MSC shall submit to the Director for approval a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. In addition, MSC shall notify the Director at least fifteen (15) days prior to any testing so the Director may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Director.
- d. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

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**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

3. Acid Plant Tail Gas Scrubber

- a. SO<sub>2</sub> emissions from the acid plant tail gas scrubber shall not exceed the following limitation:

Source	SO <sub>2</sub> in (lbs/hr.)
Acid Plant Tail Gas Scrubber (P021-19)	6.0

- b. MSC will conduct an initial stack test of the acid plant tail gas scrubber by June 30, 2016, utilizing 40 CFR § 60, Appendix A, Method 6 or equivalent. Thereafter, stack testing for the acid plant tail gas scrubber shall occur twice every five years. Upon incorporation of this Consent Order into the Facility Title V permit pursuant to Section II.7, stack testing for the acid plant tail gas scrubber shall occur twice per permit term.
- c. MSC shall submit to the Director for approval a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. In addition, MSC shall notify the Director at least fifteen (15) days prior to any testing so the Director may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Director.
- d. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.
- e. MSC shall monitor scrubber recirculation flow rate to ensure compliance with the emission limit in Section 11.3.a.
- f. The testing protocol in Section 11.3.c shall include a procedure for establishing a minimum scrubber recirculation flow rate as a 24-hour average that demonstrates compliance with the emission limit in Section 11.3.a.

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**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

- g. For each calendar day, MSC shall maintain the scrubber recirculation flow rate as a 24-hour average at or above the minimum rate as established during the stack test.
- h. For each calendar day that the Acid Plant Tail Gas Scrubber operates, MSC shall record the 24-hour average scrubber recirculation flow rate.
- i. MSC may re-establish the minimum scrubber recirculation flow rate limit through subsequent stack tests.
- j. The operational limitation required by Section 11.3.g shall become effective no later than ninety days following completion of the initial stack test.

**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

4. Maintenance Outages

- a. MSC conducts outages necessary for the maintenance, repair and replacement of the COG H<sub>2</sub>S scrubber, acid plant and associated ancillary equipment for continued desulfurization of the facility's COG. The following restrictions shall apply during the outages:
  - i. MSC shall be limited to a maximum of 20 days in any calendar year for planned maintenance outages of the desulfurization unit in the coke by-products recovery plant. No single scheduled outage period shall extend beyond 240 hours. The start of a planned maintenance shall begin at the time of the first hour that is greater than 50 grains of H<sub>2</sub>S/100 cubic feet of COG. The planned maintenance shall be concluded at the time of the first hour (following a maintenance start) that is less than or equal to 50 grains of H<sub>2</sub>S/100 cubic feet of COG.
  - ii. MSC shall notify the Director in writing 30 days prior to undertaking any planned maintenance outage of the desulfurization unit. Such notice shall include, at a minimum, a detailed explanation of each and every maintenance and/or repair activity intended to be undertaken and a schedule for completion of each such activity, as well as evidence of compliance with the Sections II.4.iii and II.4.iv.
  - iii. MSC utilized air quality dispersion modeling to determine what periods represent the most favorable dispersion of excess SO<sub>2</sub> emissions to prevent to the greatest extent practicable any violation of the National Ambient Air Quality Standard ("NAAQS") for SO<sub>2</sub>, and based on such modeling, MSC shall conduct planned maintenance outages during the months of April and November.
  - iv. Prior to any planned maintenance outage of the desulfurization unit, MSC shall prepare and submit a SO<sub>2</sub> mitigation plan to the Director outlining what measures MSC will employ during the outage to ensure continued attainment of the NAAQS. This plan shall include the employment of reasonable controls and process measures to reduce SO<sub>2</sub> emissions from the Facility. These controls and measures include, but are not limited to, reduced coke production rates at the Coke Over Batteries #1, #2, #3, and #8. During the outage, MSC shall operate at a coke production rate of no more than 63 ovens per day on # 8 Battery, or no more than a combined 51 ovens per day on #8 Battery and no more than 72 ovens per day total on the #1, #2, #3 Batteries.

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**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

- v. No later than 30 days after completing a planned maintenance outage of the desulfurization unit, MSC shall submit a report identifying the monitored SO<sub>2</sub> impacts associated with the planned maintenance outage of the desulfurization unit. This report shall include any deviation of the SO<sub>2</sub> mitigation plan that was submitted for the respective outage period. Should all necessary monitoring data not be available within 15 days following the planned maintenance outage, the report shall be filed 15 days following receipt of the applicable monitoring data. If monitored NAAQS exceedances occur, MSC shall submit to the Director for approval a mitigation plan for future outages. Such plan shall be submitted within 60 days of submission of the monitored impacts report, and include a commitment by MSC to abide by such plan.
- vi. During the planned maintenance outage, MSC shall only use coal in the coke batteries with an average blended sulfur content of no greater than 1.25%. Compliance with the sulfur content limits will be supplier certification data or similar data.
- vii. MSC shall be limited to a maximum of 3 days, or 72 hours, taken in any combination of hours or days in any calendar year, for unplanned maintenance outages of the desulfurization unit in the coke by-products recovery plant. For the purposes of counting hours, unplanned maintenance outages begin at the time of the first hour that is greater than 50 grains of H<sub>2</sub>S/100 cubic feet of COG, and conclude at the time of the first hour (following a maintenance start) that is less than or equal to 50 grains of H<sub>2</sub>S/100 cubic feet of COG. During any unplanned outage, MSC shall employ the emissions control and mitigation measures described in Section II.4.iv to the extent practical, but not later than 24 hours after an unplanned outage has commenced, MSC shall notify the Director of such outage.
- b. The requirements set forth in Section II.4 become effective on January 1, 2017.
- c. The restrictions in this Section II.4 shall not apply if MSC conducts the maintenance outage without taking offline the H<sub>2</sub>S scrubber in a circumstance where MSC employs equivalent redundant controls for desulfurization of the Facility's COG.
5. MSC shall maintain all records required by this Consent Order for a minimum of five years. All such records shall be located at the Facility and shall be available for WVDEP review.
6. MSC shall combine the #9 Boiler Stack and #10 Boiler Stack and divert the gas flow into the already combined #6 and #7 Boiler Stack ("Combined Boiler Stack"). MSC shall complete the

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**Attachment D – Regulatory Discussion and Consent Order Conditions (continued)**

engineering for the Combined Boiler Stack by April 1, 2016. MSC shall complete the construction and commence operation of the Combined Boiler Stack by January 1, 2017.

7. Within 180 days of the effective date of this Consent Order, MSC shall submit to the Department complete 45 CSR § 13 and Title V permit modification applications, requesting the incorporation of the terms of this Section II "Order for Compliance" into the respective operating permits. Upon incorporation of the "Order for Compliance" terms into final operating permits, this Consent Order shall terminate. Thereafter, revisions to the "Order for Compliance" terms incorporated into the operating permits can be achieved pursuant to appropriate procedures for permit amendments and modifications as set forth in 45 CSR § 13-4, 45 CSR § 13-5, 45 CSR § 30-6.4, and 45 CSR § 30-6.5.

8. MSC shall physically disconnect the COG pipeline leading to the Mingo Junction Energy Center located in Mingo Junction, Ohio, by January 1, 2017. The physical disconnection of the COG pipeline shall occur within the MSC plant boundary. MSC shall also not provide COG to any entity offsite of the MSC plant proper.

9. MSC shall submit quarterly reports to the Director by April 30th for the 1st quarter, by July 31st for the 2nd quarter, by October 31st for the 3rd quarter and by January 31st for the 4th quarter. The first quarterly report shall be submitted to the Director by April 30, 2017. These quarterly reports shall include the following:

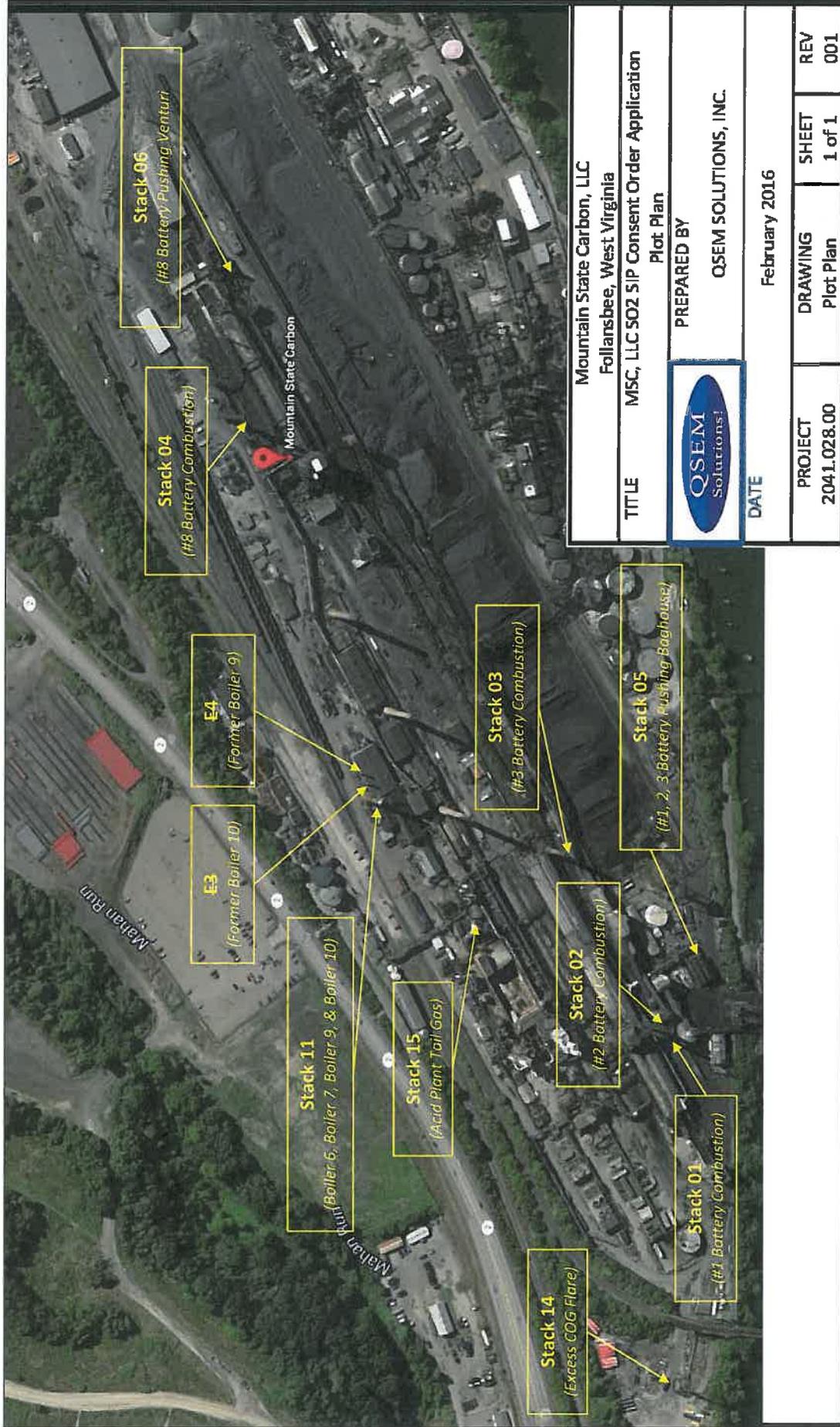
- a. The pounds of SO<sub>2</sub> per hour as a daily average for each COG combustion source as required by Section II.1.d.
- b. The daily 24-hour average scrubber circulation flow rate as required by Section II.3.h.

Attachment E

Plot Plan

Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

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Mountain State Carbon, LLC Follansbee, West Virginia			
TITLE MSC, LLC S02 SIP Consent Order Application Plot Plan			
PREPARED BY  QSEM SOLUTIONS, INC.			
DATE		February 2016	
PROJECT	DRAWING	SHEET	REV
2041.028.00	Plot Plan	1 of 1	001

Attachment I

Emissions Unit Table

Application for NSR Permit and Title V Permit Revision for:

Sulfur Dioxide SIP Consent Order

Mountain State Carbon, LLC

Follansbee, WV

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### ATTACHMENT I: Emissions Unit Table

*(From Title V Renewal Applications ATTACHMENT D - Title V Equipment Table)  
(includes all emission units at the facility except those designated as  
insignificant activities in Section 4, Item 24 of the General Forms)*

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
<b>Battery #1 Group 001</b>					
P001-1	None	F01	Charging on Battery# 1	31.60 tons coal/hr and 227,000 tons coal/year	1917/1954
P001-2	None	F02	Topside Leaks from Battery #1	NA	1917/1954
P001-3	None	F03	Door and Offtake Leaks from Battery #1	NA	1917/1954
P001-4	None	Stack 01	Underfire Stack for Battery # 1	31.6 tons coal/hr 22.1 tons coke/hr	1917/1954
P001-5	Shed OBSC and Baghouse C01	Stack 05, F13, F14, F15	Pushing from Coke Oven Batteries #1, #2, and #3 (F13, F14, and F15).	97.2 tons Coal/hr 68.1 tons coke/hr	1917/1954
OBSC (control device)	Baghouse C01	OBSC	Shed	NA	1982
C01 (control device)	NA	Stack 05	Batteries #1, #2, and #3 Pushing Baghouse	300,000 cfm at 125 degrees F	1982
P001-6	C10	Stack 07	Quenching for Batteries #1, #2, and #3	68.1 tons coke/hr	1917/1954
C10 (control device)	Baffles	Stack 07	Batteries #1, #2, and #3 Quenching Baffle	68.1 tons coke/hr	1917/1954
P008-1	None	Stack S16 S17	Emergency Flares for Battery # 1	314,000 scfh (total COG flow)	1994
P008-2	None	Stack S18, S19	Emergency Flares for Battery # 2	314,000 scfh (total COG flow)	1994
P008-3	None	Stack S20	Emergency Flares for Battery # 3	314,000 scfh (total COG flow)	1994
<b>Battery #2 Group 002</b>					
P002-1	None	F04	Charging on Battery# 2	31.60 tons coal/hr and 227,000 tons coal/year tons	1917/1953
P002-2	None	F05	Topside Leaks from Battery #2	NA	1917/1953

## ATTACHMENT I: Emissions Unit Table

P002-3	None	F06	Door and Offtake Leaks from Battery #2	NA	1917/1953
P002-4	None	Stack 02	Underfire Stack for Battery # 2	31.6 tons coal/hr 22.1 tons coke/hr	1917/1953
<b>Battery #3 Group 003</b>					
P003-1	None	F07	Charging on Battery# 3	34.0 tons coal/hr and 298,000 tons coal/year	1917/1953
P003-2	None	F08	Topside Leaks from Battery #3	NA	1917/1953
P003-3	None	F09	Door and Offtake Leaks from Battery #3	NA	1917/1953
P003-4	None	Stack 03	Underfire Stack for Battery # 3	34 tons coal/hr 23.8 tons coke/hr	1917/1953
<b>Battery #8 Group 004</b>					
P004-1	None	F10	Charging on Battery #8	152.6 tons coal/hr and 1,336,776 tons coal/year	1976
P004-2	None	F11	Topside Leaks from Battery #8	NA	1976
P004-3	None	F12	Door and Offtake Leaks from Battery #8	NA	1976
P004-4	None	Stack 04	Underfire Stack for Battery #8	152.6 tons coal/hr 106.8 tons coke/hr	1976
P004-5	Mobile Hood 8CS and Scrubber C02	Stack 06, F16	Pushing from Coke Oven Battery #8	152.62 tons Coal/hr 106.8 tons coke/hr	1976
8CS (control device)	Scrubber C02	8CS	Mobile Hood	NA	1976
C02 (control device)	NA	Stack 06	Battery #8 Pushing Venturi Scrubber	470,000 cfm	1976
P004-6	Baffles C11a	Stack O8a	Quenching for Battery #8 (South quench tower)	152.6 tons coal/hr and 106.5 tons	1976
C11a (control device)	NA	Stack O8a	Batteries #8 Quenching Tower Baffles (South quench tower)	175 tons coke/hr	1976
P004-7	Baffles C11b	Stack O8b	Quenching for Battery #8 (North quench tower)	175 tons coke/hr	2005
C11b (control device)	NA	Stack O8b	Battery #8 Quenching Baffles (North quench tower)	175 tons coke/hr	2005
P008-4	None	Stack 21, 22	Emergency Flares for Battery #8	1,660,300 scfh (total COG flow)	1994

## ATTACHMENT I: Emissions Unit Table

<b>Boilers Group 005</b>					
P017	None	Stack 11	Boiler# 6	90MMBtu/hr COG/NG	1951/2004
P018	None	Stack 11	Boiler# 7	90MMBtu/hr COG/NG	1951/2004
P019	None	Stack 12	Boiler# 8	78.5 MMBtu/hr Natural gas	1976/2004/ 2014
S1	None	<del>E3</del> Stack 11	Boiler# 9	98 MMBtu/hr COG/NG	2004/2016
S5	None	<del>E4</del> Stack 11	Boiler# 10	98MMBtu/hr COG/NG	2004/2016
<b>By-Product Plant Group 009</b>					
P021	None	F29	By-Products Plant	80MMCF/day coke oven gas	1978
<b>Process Tanks On By-Products Plant Group 009</b>					
P021-19	C15	Stack 15	Sulfuric Acid Plant Tail Gas Stack	50 tons 100% H2SO4/day	1978
CI5 (control device)	NA	Stack 15	Tail Gas Scrubber	7,000 acfm	2005
P021-21	None	F30	Light Oil Loading	4,700,000 gal/yr	1990/1991
P021-22	None	P34	Coal Tar Loading Station	550 gpm / 20,000 gal/hr	1993/2016
P024-1	None	Stack 14	Excess Oven Coke Gas (COG) Flare	460 MMBtu/hr	1993
<b>Non-Contact Cooling Towers Group 009</b>					
	Sealed		Wet Surface Air Coolers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Light Oil Cooling Tower	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Liquor Cooling Tower (5) (Bioplant) [146, 147, 148, 149, 150]	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Desulfurization Boiler	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Reaction Chamber	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Deacidifiers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Converter	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Drying Tower	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Mist Precipitator	Coke Oven Gas @ 80mmcf/d	1978

## ATTACHMENT I: Emissions Unit Table

	Sealed		Acid Coolers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Acid Cooler Sump	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Primary Coolers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Saturators	Coke Oven Gas @ 80mmcf/d	1978/2013
	Sealed		Detarrers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Acid Separators	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Rectifier Building	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Benzol Washers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Wash Oil Coolers	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Still Tanks	Coke Oven Gas @ 80mmcf/d	1978
	Sealed		Gas Holder (Idle)	100,000 cf	1947

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

Attachment J

Emission Point Summary Table Sheet  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

Table A-1. List of MSC Sources for SIP Modeling Analysis

Model ID	2010 Title V Emission Unit ID#	Title V Emission Point ID#	Emission Unit Description	Emission Point Description
MSCCOGFL	P024-1	Stack 14	Excess Oven Coke Oven Gas (COG) Flare	Excess COG Flare Stack
MSCBATT1	P001-4	Stack 01	Underfire Stack for Battery # 1	Battery 1 Combustion Stack
MSCBATT2	P002-4	Stack 02	Underfire Stack for Battery # 2	Battery 2 Combustion Stack
MSCBATT3	P003-4	Stack 03	Underfire Stack for Battery # 3	Battery 3 Combustion Stack
MSCBATT8	P004-4	Stack 04	Underfire Stack for Battery # 8	Battery 8 Combustion Stack
MSC8SCRU	P004-5 CO2	Stack 06	Battery # 8 Pushing Venturi Scrubber (control device)	MSC Battery 8 Scrubber Stack
MSC67910	P017 P018 S1 S5	Stack 11	COG Boilers # 6, 7, 9, 10	MSC Boilers 6-7-9-10 Merged Stack
MSCACIDS	P021-19 C15	Stack 15	Sulfuric Acid Plant Tail Gas Stack Tail Gas Scrubber (control device)	Acid Plant Tail Gas Stack
MSCPB1				Battery 1-2-3 Pushing Baghouse Stack 1
MSCPB2				Battery 1-2-3 Pushing Baghouse Stack 2
MSCPB3				Battery 1-2-3 Pushing Baghouse Stack 3
MSCPB4				Battery 1-2-3 Pushing Baghouse Stack 4
MSCPB5				Battery 1-2-3 Pushing Baghouse Stack 5
MSCPB6				Battery 1-2-3 Pushing Baghouse Stack 6
MSCPB7	P001-5			Battery 1-2-3 Pushing Baghouse Stack 7
MSCPB8	C01	Stacks 05	Batteries #1, #2, and #3 Pushing Baghouse (control device)	Battery 1-2-3 Pushing Baghouse Stack 8
MSCPB9				Battery 1-2-3 Pushing Baghouse Stack 9
MSCPB10				Battery 1-2-3 Pushing Baghouse Stack 10
MSCPB11				Battery 1-2-3 Pushing Baghouse Stack 11
MSCPB12				Battery 1-2-3 Pushing Baghouse Stack 12
MSCPB13				Battery 1-2-3 Pushing Baghouse Stack 13
MSCPB14				Battery 1-2-3 Pushing Baghouse Stack 14

Table A-2. List of Stack Parameters for MSC Point Sources

Model Stack ID	Description	UTM East <sup>1</sup> (m)	UTM North <sup>1</sup> (m)	Elevation <sup>2</sup> (m)	Stack Height (m)	Stack Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
MSC06FL	Excess COG Flare	533,257.0	4,466,415.0	205.43	63.93	1273.00	20.00	3.88
MSCBATT1	Battery 1 Combustion Stack	533,290.0	4,466,132.0	205.43	60.96	583.15	5.06	2.28
MSCBATT2	Battery 2 Combustion Stack	533,293.0	4,466,127.0	205.43	60.96	583.15	5.06	2.28
MSCBATT3	Battery 3 Combustion Stack	533,381.0	4,465,988.0	205.43	68.58	588.71	5.00	2.44
MSCBATT8	Battery 8 Combustion Stack	533,648.0	4,465,651.0	205.43	76.20	422.04	8.32	3.76
MSC8SCRU	MSC Battery 8 Scrubber Stack	533,640.7	4,465,537.0	205.43	18.29	318.20	13.41	2.28
MSC67910	MSC Boilers 6-7-9-10 Merged Stack	533,526.0	4,465,952.0	205.43	53.34	483.87	15.35	2.74
MSCACIDS	Acid Plant Tail Gas Stack	533,439.0	4,466,089.0	205.43	21.34	299.82	10.45	0.51
MSCPB1	Battery 1-2-3 Pushing Baghouse Stack 1	533,246.5	4,466,076.0	205.43	17.07	332.59	23.20	0.70
MSCPB2	Battery 1-2-3 Pushing Baghouse Stack 2	533,245.1	4,466,078.0	205.43	17.07	332.59	23.20	0.70
MSCPB3	Battery 1-2-3 Pushing Baghouse Stack 3	533,243.8	4,466,081.0	205.43	17.07	332.59	23.20	0.70
MSCPB4	Battery 1-2-3 Pushing Baghouse Stack 4	533,242.0	4,466,084.0	205.43	17.07	332.59	23.20	0.70
MSCPB5	Battery 1-2-3 Pushing Baghouse Stack 5	533,240.6	4,466,086.0	205.43	17.07	332.59	23.20	0.70
MSCPB6	Battery 1-2-3 Pushing Baghouse Stack 6	533,239.2	4,466,088.0	205.43	17.07	332.59	23.20	0.70
MSCPB7	Battery 1-2-3 Pushing Baghouse Stack 7	533,237.8	4,466,091.0	205.43	17.07	332.59	23.20	0.70
MSCPB8	Battery 1-2-3 Pushing Baghouse Stack 8	533,250.3	4,466,078.0	205.43	17.07	332.59	23.20	0.70
MSCPB9	Battery 1-2-3 Pushing Baghouse Stack 9	533,248.9	4,466,081.0	205.43	17.07	332.59	23.20	0.70
MSCPB10	Battery 1-2-3 Pushing Baghouse Stack 10	533,247.5	4,466,083.0	205.43	17.07	332.59	23.20	0.70
MSCPB11	Battery 1-2-3 Pushing Baghouse Stack 11	533,245.8	4,466,086.0	205.43	17.07	332.59	23.20	0.70
MSCPB12	Battery 1-2-3 Pushing Baghouse Stack 12	533,244.3	4,466,088.0	205.43	17.07	332.59	23.20	0.70
MSCPB13	Battery 1-2-3 Pushing Baghouse Stack 13	533,242.9	4,466,090.0	205.43	17.07	332.59	23.20	0.70
MSCPB14	Battery 1-2-3 Pushing Baghouse Stack 14	533,241.5	4,466,093.0	205.43	17.07	332.59	23.20	0.70

<sup>1</sup> Coordinates are in the UTM NAD83 Zone 17 coordinate system.

<sup>2</sup> Elevation of the plant grade.

Attachment L

Emissions Unit Data Sheet

Application for NSR Permit and Title V Permit Revision for:

Sulfur Dioxide SIP Consent Order

Mountain State Carbon, LLC

Follansbee, WV

February 2016

Attachment L

Boilers - Emissions Unit Data Sheet  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

**ATTACHMENT L: Emissions Unit Data Sheet**  
*(from Title V Renewal Application: Attachment E – Emission Unit Form)*

**Emission Unit Description**

<b>Emission unit ID number:</b> P017	<b>Emission unit name:</b> Boiler #6	<b>List any control devices associated with this emission unit:</b> None
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Boilers are used to produce steam for various processes throughout of facility.

<b>Manufacturer:</b> Babcock and Wilcox	<b>Model number:</b> Sterling	<b>Serial number:</b> W-0669-W
<b>Construction date:</b> 1951	<b>Installation date:</b> 1951	<b>Modification date(s):</b> 12/30/2004

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 90 MMBtu/hr

<b>Maximum Hourly Throughput:</b> 90 MMBtu/hr	<b>Maximum Annual Throughput:</b> 788,400 MMBtu/year	<b>Maximum Operating Schedule:</b> 8,232 hours/year (routine), 528 hours desulphurization maintenance
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> 90MMBtu/hr	<b>Type and Btu/hr rating of burners:</b> Coke Oven Gas Burner Back-up Natural Gas Burner
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**  
 Coke Oven Gas- 1612.3 mmcf/yr or 0.184 mmcf/hr (supplied from Coke By-product recovery plant)  
 Natural Gas- secondary fuel 788.4 mmcf/yr or 0.09 mmcf/hr

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coke Oven Gas	0.075% s	Neg	489 Btu/ft3 (LHV)
Natural Gas	Neg.	Neg.	1000 Btu/ft3

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See previous applications	See previous applications
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> )	85.7 (daily average, normal operations; <i>combined with Boilers #7, 9, &amp; 10</i> )	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See previous applications	See previous applications
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See previous applications</p>		

<p><b><i>Applicable Requirements</i></b></p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Refer to Attachment D Regulatory Discussion</p>
<p><input checked="" type="checkbox"/> Permit Shield</p>
<p>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</p> <p>Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans</p>
<p>Are you in compliance with all applicable requirements for this emission unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, complete the Schedule of Compliance Form as ATTACHMENT F.</p>
<p> </p>

**ATTACHMENT L: Emissions Unit Data Sheet**  
 (from Title V Renewal Application: Attachment E – Emission Unit Form)

<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b> P018	<b>Emission unit name:</b> Boiler #7	<b>List any control devices associated with this emission unit:</b> None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Boilers are used to produce steam for various processes throughout of facility.			
<b>Manufacturer:</b> Babcock and Wilcox	<b>Model number:</b> Sterling	<b>Serial number:</b> W-0669-W	
<b>Construction date:</b> 1951	<b>Installation date:</b> 1951	<b>Modification date(s):</b> 12/30/2004	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 90 MMBtu/hr			
<b>Maximum Hourly Throughput:</b> 90 MMBtu/hr	<b>Maximum Annual Throughput:</b> 788,400 MMBtu/year	<b>Maximum Operating Schedule:</b> 8,760 hours/year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> 90MMBtu/hr		<b>Type and Btu/hr rating of burners:</b> Coke Oven Gas Burner Back-up Natural Gas Burner	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b> Coke Oven Gas- 1612.3 mmcf/yr or 0.184 mmcf/hr (supplied from Coke By-product recovery plant) Natural Gas- secondary fuel 788.4 mmcf/yr or 0.09 mmcf/hr			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Coke Oven Gas	0.075% s	Neg	489 Btu/ft3 (LHV)
Natural Gas	Neg.	Neg.	1000 Btu/ft3

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See previous applications	See previous applications
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> )	See Emissions Unit Data Sheet for Boiler #6 (combined with Boilers #6, 7, & 10)	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See previous applications	See previous applications
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See previous applications</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Requirements

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

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**ATTACHMENT L: Emissions Unit Data Sheet**  
 (from Title V Renewal Application: Attachment E – Emission Unit Form)

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> S1	<b>Emission unit name:</b> Boiler #9	<b>List any control devices associated with this emission unit:</b> None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Boilers are used to produce steam for various processes throughout of facility.			
<b>Manufacturer:</b> Babcock and Wilcox	<b>Model number:</b> FM 103-97	<b>Serial number:</b> 201-3409	
<b>Construction date:</b> 04/01/2004	<b>Installation date:</b> 12/30/2004	<b>Modification date(s):</b> 12/30/2004	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 98 MMBtu/hr			
<b>Maximum Hourly Throughput:</b> 98 MMBtu/hr	<b>Maximum Annual Throughput:</b> 858,480 MMBtu/year	<b>Maximum Operating Schedule:</b> 8,232 hours/year (routine), 528 hours desulphurization maintenance	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> 98MMBtu/hr		<b>Type and Btu/hr rating of burners:</b> Coke Oven Gas Burner Back-up Natural Gas Burner	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b> Coke Oven Gas- 1,756 MMCF/yr or 0.2 mmcf/hr (supplied from Coke By-product recovery plant) Natural Gas, (secondary fuel)- 859 MMCF/yr or 0.098 mmcf/hr			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coke Oven Gas	0.075% s	Neg	489 Btu/ft3 (LHV)
Natural Gas	Neg.	Neg.	1000 Btu/ft3

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See previous applications	See previous applications
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> )	See Emissions Unit Data Sheet for Boiler #6 (combined with Boilers #6, 9, & 10)	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants		
	PPH	TPY
	See previous applications	See previous applications
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See previous applications</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Discussion

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

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**ATTACHMENT L: Emissions Unit Data Sheet**

*(from Title V Renewal Application: Attachment E – Emission Unit Form)*

<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b> S5	<b>Emission unit name:</b> Boiler #10	<b>List any control devices associated with this emission unit:</b> None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Boilers are used to produce steam for various processes throughout of facility.			
<b>Manufacturer:</b> Babcock and Wilcox	<b>Model number:</b> FM 103-97	<b>Serial number:</b> 201-3410	
<b>Construction date:</b> 04/01/2004	<b>Installation date:</b> 12/30/2004	<b>Modification date(s):</b> 12/30/2004	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 98 MMBtu/hr			
<b>Maximum Hourly Throughput:</b> 98 MMBtu/hr	<b>Maximum Annual Throughput:</b> 858,480 MMBtu/year	<b>Maximum Operating Schedule:</b> 8,760 hours/year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> 98MMBtu/hr		<b>Type and Btu/hr rating of burners:</b> Coke Oven Gas Burner Back-up Natural Gas Burner	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b> Coke Oven Gas- 1,756 MMCF/yr or 0.2 mmcf/hr (supplied from Coke By-product recovery plant) Natural Gas, (secondary fuel)- 859 MMCF/yr or 0.098 mmcf/hr			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Coke Oven Gas	0.075% s	Neg	489 Btu/ft3 (LHV)
Natural Gas	Neg.	Neg.	1000 Btu/ft3

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See previous applications	See previous applications
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> )	See Emissions Unit Data Sheet for Boiler #6 (combined with Boilers #6, 7, & 9)	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See previous applications	See previous applications
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See previous applications</p>		

<p><b>Applicable Requirements</b></p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Refer to Attachment D Regulatory Discussion</p>
<p><input checked="" type="checkbox"/> Permit Shield</p> <p>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</p> <p>Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans</p>
<p>Are you in compliance with all applicable requirements for this emission unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, complete the Schedule of Compliance Form as ATTACHMENT F.</p>
<p> </p>

Attachment L

Batteries - Emissions Unit Data Sheet  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

**ATTACHMENT L: Emissions Unit Data Sheet**  
(from Title V Renewal Application: Attachment E – Emission Unit Form)

**Emission Unit Description**

<b>Emission unit ID number:</b> P001-1, P001-2, P001-3, P001-4, P001-5, P001-6	<b>Emission unit name:</b> Battery# 1 - Charging, Topside Leaks, Door and Offtake Leaks, Underfire Stack, Pushing (from #1, #2, and #3 batteries), and Quenching (from #1 #2, and #3 batteries).	<b>List any control devices associated with this emission unit:</b> OBSC, C01, and C10
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Coke battery #1 is a short (less than 6 meter) coke oven battery with 47 ovens. Each oven has four charging holes, two doors and one offtake. The underfiring of Battery #1 involves the combustion of clean coke oven gas which provides heat to the ovens for the coking process. The OBSC Shed and Baghouse C01 control P001-5 and Baghouse C10 controls P001-6.  
P001-5 includes pushing from Batteries #1, #2, and #3. Pushing identifies the emissions generated by the pushing of coke out of batteries #1, #2, and #3 into a quench car after the coke process is complete. The maximum amount of coal charged per hour in batteries #1, #2, and #3 combined is 97.2 tons. Approximately 68.1 tons of coke per hour are produced from these three batteries.  
P001-6 includes quenching from Batteries #1, #2, and #3. Quenching is a process used to keep coke from burning. The coke pushed from the battery ovens is very hot and will burn when it contacts oxygen in the air. The coke is sprayed with water in a quench tower to reduce its temperature below the ignition point.

<b>Manufacturer:</b> Koppers	<b>Model number:</b> NA	<b>Serial number:</b> NA
<b>Construction date:</b> 01-10-1917	<b>Installation date:</b> 01-10-1917	<b>Modification date(s):</b> 1954

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 31.60 tons of coal charged/hour and 22.1 tons of coke/hour

<b>Maximum Hourly Throughput:</b> 31.60 tons of coal charged and 22.1 tons of coke/hour	<b>Maximum Annual Throughput:</b> 277,000 tons of coal charged	<b>Maximum Operating Schedule:</b> 8760 hours/year
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 88MMBtu/hr	<b>Type and Btu/hr rating of burners:</b> Multi-burners 58,200 Btu/hr

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

The coke oven gas used in the underfiring process is supplied from the by-product plant at the facility.  
COG-160,000 CFH and 1,401,600 Mcf per year.  
Mixed Gas-160,000 CFH and 1,401,600 Mcf per year.

Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coke Oven Gas	0.075% s	Neg	489 btu/ft3 (LHV)
<b>Emissions Data</b>			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	See previous applications	See previous applications	
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications	
Lead (Pb)	See previous applications	See previous applications	
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications	
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications	
Total Particulate Matter (TSP)	See previous applications	See previous applications	
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Underfire</i> ]	21.4 (daily average, normal operations)	See previous applications	
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Baghouse, combined with Batteries 2 &amp; 3</i> ]	10.48 (during normal operations)	See previous applications	
Volatile Organic Compounds (VOC)	See previous applications	See previous applications	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
	See previous applications	See previous applications	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications	
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See previous applications</p>			

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Discussion

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

**ATTACHMENT L: Emissions Unit Data Sheet**  
 (from Title V Renewal Application: Attachment E – Emission Unit Form)

<b>Emission Unit Description</b>		
<b>Emission unit ID number:</b> P002-1, P002-2, P002-3, P002-4, P001-5, P001-6	<b>Emission unit name:</b> Battery# 2 - Charging, Topside Leaks, Door and Offtake Leaks, Underfire Stack, Pushing (from #1, #2, and #3 batteries), and Quenching (from #1 #2, and #3 batteries).	<b>List any control devices associated with this emission unit:</b> OBSC, C01, and C10
<p><b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>                  Coke battery #2 is a short (less than 6 meter) coke oven battery with 47 ovens. Each oven has four charging holes, two doors and one offtake. The underfiring of Battery #1 involves the combustion of clean coke oven gas which provides heat to the ovens for the coking process.                  P001-5 includes pushing from Batteries #1, #2, and #3. Pushing identifies the emissions generated by the pushing of coke out of batteries #1, #2, and #3 into a quench car after the coke process is complete. The maximum amount of coal charged per hour in batteries #1, #2, and #3 combined is 97.2 tons. Approximately 68.1 tons of coke per hour are produced from these three batteries.                  P001-6 includes quenching from Batteries #1, #2, and #3. Quenching is a process used to keep coke from burning. The coke pushed from the battery ovens is very hot and will burn when it contacts oxygen in the air. The coke is sprayed with water in a quench tower to reduce its temperature below the ignition point.</p>		
<b>Manufacturer:</b> Koppers	<b>Model number:</b> NA	<b>Serial number:</b> NA
<b>Construction date:</b> 01-10-1917	<b>Installation date:</b> 01-10-1917	<b>Modification date(s):</b> 1953
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 31.60 tons of coal charged/hour and 22.1 tons of coke/hour		
<b>Maximum Hourly Throughput:</b> 31.60 tons of coal charged and 22.1 tons of coke/hour	<b>Maximum Annual Throughput:</b> 277,000 tons of coal charged	<b>Maximum Operating Schedule:</b> 8760 hours/year
<b>Fuel Usage Data (fill out all applicable fields)</b>		
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 88MMBtulhr		<b>Type and Btu/hr rating of burners:</b> Multi-burners 58,200 Btu/hr
<p><b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>                  The coke oven gas used in the underfiring process is supplied from the by-product plant at the facility.                  COG-160,000 CFH and 1,401,600 Mcf per year.                  Mixed Gas-160,000 CFH and 1,401,600 Mcf per year.</p>		
<b>Describe each fuel expected to be used during the term of the permit.</b>		

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coke Oven Gas	0.075% s	Neg	489 btu/ft3 (LHV)

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See previous applications	See previous applications
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Underfire</i> ]	21.4 (daily average; normal operations)	See previous applications
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Baghouse, combined with Batteries 1 &amp; 3</i> ]	See Emissions Unit Data Sheet for Battery #1	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See previous applications	See previous applications
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See previous applications

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Discussion

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT L: Emissions Unit Data Sheet

(from Title V Renewal Application: Attachment E – Emission Unit Form)

### Emission Unit Description

<b>Emission unit ID number:</b> P003-1, P003-2, P003-3, P003-4, P001-5, P001-6	<b>Emission unit name:</b> Battery# 3 - Charging, Topside Leaks, Door and Offtake Leaks, Underfire Stack, Pushing (from #1, #2, and #3 batteries), and Quenching (from #1 #2, and #3 batteries).	<b>List any control devices associated with this emission unit:</b> OBSC, C01, and C10
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Coke battery #3 is a short (less than 6 meter) coke oven battery with 51 ovens. Each oven has four charging holes, two doors and one offtake. The underfiring of Battery #1 involves the combustion of clean coke oven gas which provides heat to the ovens for the coking process.

P001-5 includes pushing from Batteries #1, #2, and #3. Pushing identifies the emissions generated by the pushing of coke out of batteries #1, #2, and #3 into a quench car after the coke process is complete. The maximum amount of coal charged per hour in batteries #1, #2, and #3 combined is 97.2 tons. Approximately 68.1 tons of coke per hour are produced from these three batteries.

P001-6 includes quenching from Batteries #1, #2, and #3. Quenching is a process used to keep coke from burning. The coke pushed from the battery ovens is very hot and will burn when it contacts oxygen in the air. The coke is sprayed with water in a quench tower to reduce its temperature below the ignition point.

<b>Manufacturer:</b> Koppers	<b>Model number:</b> NA	<b>Serial number:</b> NA
<b>Construction date:</b> 01-10-1917	<b>Installation date:</b> 01-10-1917	<b>Modification date(s):</b> 1953

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 34.0 tons of coal charged/hour and 23.8 tons of coke/hour

<b>Maximum Hourly Throughput:</b> 34.0 tons of coal charged/hour and 23.8 tons of coke/hour	<b>Maximum Annual Throughput:</b> 298,000 tons of coal charged	<b>Maximum Operating Schedule:</b> 8760 hours/year
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### Fuel Usage Data (fill out all applicable fields)

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 88MMBtu/hr	<b>Type and Btu/hr rating of burners:</b> Multi-burners 60,450 Btu/hr

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

The coke oven gas used in the underfiring process is supplied from the by-product plant at the facility.

COG-173,617 CFH and 1,520,885 Mcf per year.

Mixed Gas-173,617 CFH and 1,520,885 Mcf per year.

Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coke Oven Gas	0.075% s	Neg	489 Btu/ft <sup>3</sup> (LHV)
<i>Emissions Data</i>			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	See previous applications	See previous applications	
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications	
Lead (Pb)	See previous applications	See previous applications	
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications	
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications	
Total Particulate Matter (TSP)	See previous applications	See previous applications	
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Underfire</i> ]	24.5 (daily average, normal operations)	See previous applications	
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Baghouse, combined with Batteries 1 &amp; 2</i> ]	See Emissions Unit Data Sheet for Battery #1	See previous applications	
Volatile Organic Compounds (VOC)	See previous applications	See previous applications	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
	See previous applications	See previous applications	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>  See previous applications			

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Discussion

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

## ATTACHMENT L: Emissions Unit Data Sheet

(from Title V Renewal Application: Attachment E – Emission Unit Form)

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> P004-1, P004-2, P004-3, P004-4, P004-5, P004-6, P004-7	<b>Emission unit name:</b> Battery #8 - Charging, Topside Leaks, Door and Offtake Leaks, Underfire Stack, Pushing (from #1, #2, and #3 batteries), and Quenching (from #1 #2, and #3 batteries).	<b>List any control devices associated with this emission unit:</b> 8CS, C02, C11a, and C11b.	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Coke battery #8 is a 6 meter coke oven battery with 79 ovens. Each oven has four charging holes, two doors and two offtakes. The underfiring of Battery #8 involves the combustion of clean coke oven gas which provides heat to the ovens for the coking process. Mobile Hood 8CS and Scrubber C02 control P004-5. Quenching Baffles C11a control P004-6. Quenching baffles C11 b control P004-7.			
<b>Manufacturer:</b> Koppers	<b>Model number:</b> NA	<b>Serial number:</b> NA	
<b>Construction date:</b> 01-01-1976	<b>Installation date:</b> 01-01-1976	<b>Modification date(s):</b> NA	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 152.6 tons of coal charged/hour and 106.8 tons of coke/hour			
<b>Maximum Hourly Throughput:</b> 152.6 tons of coal charged/hour and 106.8 tonsof coke/hour	<b>Maximum Annual Throughput:</b> 1,336,77 6 tons of coal charged	<b>Maximum Operating Schedule:</b> 8760 hours/year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> 477.79 MMBtu/hr		<b>Type and Btu/hr rating of burners:</b> Multi-burners 177,000 Btu/hr	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b> The coke oven gas used in the underfiring process is supplied from the by-product plant at the facility. COG- 868,700 CFH and 7,609,812 Mcf per year Mixed gases- 868,700 CFH and 7,609,812 Mcf per year			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coke Oven Gas	0.075% s	Neg	489 Btu/ft3 (LHV)
Mix gas	Neg.	Neg.	500 Btu/ft3

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See previous applications	See previous applications
Nitrogen Oxides (NO <sub>x</sub> )	See previous applications	See previous applications
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Underfire</i> ]	115.4 (daily average, normal operations)	See previous applications
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Scrubber</i> ]	15.72 (during normal operations)	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See previous applications	See previous applications
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See previous applications</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Discussion

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

Attachment L

Acid Plant Tail Gas Scrubber (By-products Plant) - Emissions Unit Data Sheet  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

**ATTACHMENT L: Emissions Unit Data Sheet**  
*(from Title V Renewal Application: Attachment E – Emission Unit Form)*

**Emission Unit Description**

<b>Emission unit ID number:</b> P021, P021-1, P021-2, P021-3, P021-4, P021-5, P021-6, P021-7, P021-8, P021-9, P021-10, P021-11, P021-12, P021-13, P021-14, P021-15, P021-16, P021-17, P021-18, P021-19, P021-21, and P021-22. Group (009)	<b>Emission unit name:</b> By-Products Plant, Tar Bottom Final Coolers (1,2,3), Tar Intercepting Sump, Tar Storage (1,2), Light Oil Condenser, Light Oil Sump, Primary Light Oil Separator, Secondary Light Oil Separator, Light Oil Receiving/Pump Tanks, Light Oil Running Tank, Light Oil Storage Tank, Wash Oil Decanter, Wash Oil Circulating Tank, Wash Oil Muck Tank, Fresh Wash Oil Storage Tank, Excess Ammonia Liquor Tanks, Tar Decanter Tanks, Mother Liquor Tank, Flushing Liquor, <u>Sulfuric Acid Plant Tail Gas Stack</u> , Light Oil Loading, and Coal Tar Loading Station.	<b>List any control devices associated with this emission unit:</b> C 15
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 By-Products plant including P021-19, sulfuric acid unit that is used to convert hydrogen sulfide into sulfuric acid which is used at the Follansbee facility.

<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 01/01/1978	<b>Installation date:</b> 01/01/1978	<b>Modification date(s):</b> 01/01/1978
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 50 tons/day Sulfuric Acid Production

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)	See previous applications	See previous applications
Particulate Matter (PM <sub>2.5</sub> )	See previous applications	See previous applications
Particulate Matter (PM <sub>10</sub> )	See previous applications	See previous applications
Total Particulate Matter (TSP)	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Byproducts Plant</i> ]	See previous applications	See previous applications
Sulfur Dioxide (SO <sub>2</sub> ) [ <i>Acid Plant Tail Gas Stack Only</i> ]	6.0 (during normal operations)	See previous applications
Volatile Organic Compounds (VOC)	See previous applications	See previous applications
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O – expressed as CO <sub>2</sub> e)	See previous applications	See previous applications
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See previous applications VOC emissions include all Byproducts emission units combined</p>		

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Refer to Attachment D Regulatory Requirements

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Refer to Attachment O Monitoring, Recordkeeping, Reporting, and Testing Plans

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

**Attachment M**

**Air Pollution Control Sheets (provided as Attachment G from Title V renewal application)**

**Application for NSR Permit and Title V Permit Revision for:**

**Sulfur Dioxide SIP Consent Order**

**Mountain State Carbon, LLC**

**Follansbee, WV**

**February 2016**

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> OBSC	<b>List all emission units associated with this control device.</b> P001-5 Pushing from Coke Oven Batteries #1, #2, and #3	
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Installation date:</b> 01/01/1982
<b>Type of Air Pollution Control Device:</b>		
<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) <u>Shed</u>
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	Adequate to meet visible	emissions standards
Metals	Adequate to meet visible	emissions standards
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Battery length structure designed to capture and hold pushing fumes while being evacuated to particulate matter collector (fabric filter).		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Complete ATTACHMENT H If No, Provide justification.                      Source subject to NESHAP.		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Trace amounts of metals may be incorporated with the particulate matter.		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> C01	<b>List all emission units associated with this control device.</b> P001-5 Pushing from Coke Oven Batteries #1, #2, and #3	
<b>Manufacturer:</b> Griffin Environmental Co.	<b>Model number:</b> NA	<b>Installation date:</b> 01/01/1982
<b>Type of Air Pollution Control Device:</b>		
<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	See "Shed"	95%
Metals	See "Shed"	95%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Filter bags currently used are made of 16oz./sq. yard polyester felt. Cleaning method: pulse jet 14 Modules; 21,500 cfm (each)		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Complete ATTACHMENT H If No, Provide justification. Source subject to NESHAP.		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Trace amounts of metals may be incorporated with the particulate matter.		

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 8CS	<b>List all emission units associated with this control device.</b> P004-5 Pushing for Battery No. 8	
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Installation date:</b> 05/01/1976
<b>Type of Air Pollution Control Device:</b>		
<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) <u>Mobile Hood</u>
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	90%	See Scrubber
Metals	90%	See Scrubber
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H		
If No, Provide justification.                      Source subject to NESHAP.		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b>		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> C02	<b>List all emission units associated with this control device.</b> P004-5 Pushing for Battery #8	
<b>Manufacturer:</b> Air Pol	<b>Model number:</b> NA	<b>Installation date:</b> 05/01/1974
<b>Type of Air Pollution Control Device:</b>		
<input type="checkbox"/> Baghouse/Fabric Filter	<input checked="" type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	See "Hood"	90%
Metals	See "Hood"	90%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>		
Pressure Drop – 41 inches H <sub>2</sub> O		
Type of scrubbing agent used - water		
Water flow - 1,059 gallons per minute		
(Not design parameters, but operating parameters based on April 2014 testing)		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, <b>Complete ATTACHMENT H</b>		
If No, <b>Provide justification.</b> Source subject to NESHAP.		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b>		

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> C15	<b>List all emission units associated with this control device.</b> P021-19 Acid Plant	
<b>Manufacturer:</b> Bionomic Industries	<b>Model number:</b> NA	<b>Installation date:</b> 12/01/2005
<b>Type of Air Pollution Control Device:</b>		
<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) <u>Caustic Scrubber</u>
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
SO <sub>2</sub>	100%	70%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>		
<p>Scrubber stack is located adjacent to the existing stack in the sulfuric acid production area near the acid coolers. The stack has a diameter of 24 inches and is 70 feet above ground. The single stage caustic scrubber has a design flow rate of 7,000 acfm and an actual operating flow rate of 4,000 acfm. Scrubber will be designed to operate at approximately 143 degrees Fahrenheit and with a pressure drop of 1 to 2 inches of H<sub>2</sub>O.</p>		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H		
If No, Provide justification. July 20, 2005 letter from John Benedict regarding applicability determination.		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b>		
<p>Monitor scrubber recirculation flow rate and report 24-hr average to demonstrate compliance with emissions limit during stack test. (Can re-establish minimum scrubber recirculation flow rate limit through subsequent stack tests.)</p>		

Attachment O

Monitoring, Reporting, Recordkeeping, and Testing Plans  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

## Attachment O – Monitoring, Reporting, Recordkeeping, and Testing Plans

### 1. Coke Oven Gas Combustion Sources (COG-fired Boilers and Batteries)

<p>9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.</p>	
<p><b>MONITORING</b></p> <p>i) Monitor quantity of COG combusted in each COG combustion source.</p> <p>ii) Continuously operate and maintain a flow monitor subject to applicable and appropriate methodologies of 40 CFR Part 60.</p> <p>iii) Continuously monitor concentration of H<sub>2</sub>S in grains of H<sub>2</sub>S/100 cubic feet of COG.</p> <p>iv) Continuously operate and maintain a H<sub>2</sub>S continuous emission monitor (CEM) subject to 40 CFR § 60 Appendix B, Performance Specification 7 and an annual relative accuracy testing audit (RATA) pursuant to the provisions of 40 CFR § 60, Appendix A, Method 15.</p> <p>v) Operate and maintain data acquisition and monitoring system for collection and archival of sulfur emissions data collected by the H<sub>2</sub>S and flow monitors on each COG combustion source.</p>	<p><b>RECORDKEEPING</b></p> <p>i) Record daily total of COG combusted in each COG combustion source.</p> <p>ii) Record daily average H<sub>2</sub>S concentration.</p> <p>iii) Calculate and record pounds of SO<sub>2</sub> per hour as a daily average for each COG combustion source.</p>
<p><b>REPORTING</b></p> <p>As per Title V operating permit.</p>	<p><b>TESTING</b></p> <p>As per Title V operating permit.</p>
<p><b>MONITORING.</b> PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.</p> <p>Coke Oven Gas volume: measured in million cubic feet/day (MMft<sup>3</sup>/day) – range as per Title V permit. Concentration of H<sub>2</sub>S in COG in grains per 100 cubic feet of COG (gr/100 ft<sup>3</sup>) – range per Title V permit. Sulfur dioxide (SO<sub>2</sub>) pounds per hour (lbs/hr) as per SO<sub>2</sub> consent order and Title V permit.</p>	
<p><b>RECORDKEEPING/REPORTING/TESTING.</b> PLEASE DESCRIBE THE PROPOSED RECORDKEEPING, REPORTING, AND TESTING THAT WILL ACCOMPANY THE MONITORING. As per SO<sub>2</sub> SIP Consent Order and Title V permit.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty. See Attachment D for requirements associated with Outages.</p>	

**Attachment O – Monitoring, Reporting, Recordkeeping, and Testing Plans**

**2. Pushing Emissions Control Sources (Batteries #1, #2, #3, and #8)**

<p>9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.</p>	
<p><b>MONITORING</b></p> <p>As per Title V operating permit.</p>	<p><b>RECORDKEEPING</b></p> <p>As per Title V operating permit.</p>
<p><b>REPORTING</b></p> <p>i) Submit a test protocol with the proposed test methods, date, and time of proposed testing.</p> <p>ii) Identify sampling locations and other Relevant information.</p> <p>iii) Test protocol must be received by the Director no less 30 days prior to date of testing.</p> <p>iv) Notify Director at least 15 days prior to any testing so the Director may have the opportunity to observe tests. The notification shall include the actual date and time of test and if appropriate, verification that the tests will conform to a referenced protocol previously approved by the Director.</p> <p>v) Test results shall be submitted to the Director no more than 60 days after testing date.</p>	<p><b>TESTING</b></p> <p>i) Conduct stack test for sulfur dioxide of #8 Battery pushing emissions control (PEC) using 40 CFR § 60, Appendix A, Method 6 or equivalent.</p> <p>ii) Conduct stack test for sulfur dioxide of #1, #2, and #3 Battery PEC using 40 CFR § 60, Appendix A, Method 6 or equivalent.</p> <p>iii) Stack testing for each Battery PEC shall occur twice per Title V permit term.</p>
<p><b>MONITORING.</b> PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 10.48 and 15.72 pounds per hour (lbs/hr) respectively, for #1, #2, and #3 PEC system and #8 PEC system, as per SO<sub>2</sub> Consent Order and Title V permit.</p>	
<p><b>RECORDKEEPING/REPORTING/TESTING.</b> PLEASE DESCRIBE THE PROPOSED RECORDKEEPING REPORTING, AND TESTING THAT WILL ACCOMPANY THE MONITORING. As per SO<sub>2</sub> SIP Consent Order and Title V permit.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty. See Attachment D for requirements associated with Outages.</p>	

## Attachment O – Monitoring, Reporting, Recordkeeping, and Testing Plans

### 3. Acid Plant Tail Gas Scrubber

<p>9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.</p>	
<p><b>MONITORING</b></p> <p>Monitor scrubber recirculation flow rate to ensure compliance with emission limit.</p>	<p><b>RECORDKEEPING</b></p> <p>For each calendar day that the Acid Plant Tail Gas Scrubber operates, record the 24-hour average scrubber recirculation flow rate.</p>
<p><b>REPORTING</b></p> <p>i) Submit a test protocol with the proposed test methods, date, and time of proposed testing.</p> <p>ii) Identify sampling locations and other Relevant information.</p> <p>iii) Test protocol must be received by the Director no less 30 days prior to date of testing.</p> <p>iv) Notify Director at least 15 days prior to any testing so the Director may have the opportunity to observe tests. The notification shall include the actual date and time of test and if appropriate, verification that the tests will conform to a referenced protocol previously approved by the Director.</p> <p>v) Test results shall be submitted to the Director no more than 60 days after testing date.</p>	<p><b>TESTING</b></p> <p>i) Conduct stack test for sulfur dioxide of Sulfuric Acid Plant Tail Gas Scrubber using 40 CFR§60 Appendix A, Method 6 or equivalent.</p> <p>ii) Conduct stack test for sulfur dioxide of Acid Plant Tail Gas Scrubber using 40 CFR § 60, Appendix A, Method 6 or equivalent.</p> <p>iii) Stack testing for Acid Plant Tail Gas Scrubber shall occur twice per Title V permit term.</p> <p>iv) Testing protocol shall include a procedure for establishing a minimum scrubber recirculation flow rate as a 24-hour average that demonstrates compliance with emission limit.</p> <p>v) For each calendar day, MSC shall maintain the scrubber recirculation flow rate as a 24-hour average at or above the minimum rate as established during the stack test.</p>
<p><b>MONITORING.</b> PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions from Acid Plant Tail Gas Scrubber shall not exceed 6.0 pounds per hour (lbs/hr) as per SO<sub>2</sub> Consent Order and Title V permit.</p>	
<p><b>RECORDKEEPING/REPORTING/TESTING.</b> PLEASE DESCRIBE THE PROPOSED RECORDKEEPING, REPORTING, AND TESTING THAT WILL ACCOMPANY THE MONITORING.</p> <p style="text-align: center;">As per SO<sub>2</sub> SIP Consent Order and Title V permit.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.</p> <p style="text-align: center;">See Attachment D for requirements associated with Outages.</p>	

**4. Maintenance Outages (associated with the Desulfurization Unit)**

<p>9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.</p>	
<p><b>MONITORING</b></p>	<p><b>RECORDKEEPING</b></p>
<p>i) Planned Maintenance Outages: 20 days/year</p>	<p>As per the SO2 SIP Consent Order and Title V permit.</p>
<p>ii) Hours/year: 240 (beginning with first hour that COG contains greater than 50 gr/100 ft<sup>3</sup> and concluding when first hour contains less than or equal to 50 gr/100 ft<sup>3</sup>).</p>	
<p>iii) Conduct planned outages in April or November as per SO2 Consent Order.</p>	

## Attachment O – Monitoring, Reporting, Recordkeeping, and Testing Plans

### 4. Maintenance Outages (associated with the Desulfurization Unit - continued)

REPORTING	TESTING
<p>i) Notify Director in writing 30 days prior to undertaking planned maintenance outage of desulfurization unit. Notice shall include an explanation of each maintenance and/or repair activity to be undertaken and a schedule for completion of each activity, as well as evidence of compliance with SO<sub>2</sub> modeling and mitigation plan requirements.</p> <p>ii) Prior to planned maintenance outage of desulfurization unit, prepare and submit a SO<sub>2</sub> mitigation plan to the Director outlining measures to be employed during the outage to ensure continued attainment of the NAAQS.</p> <p>iii) The mitigation plan shall include employment of reasonable controls and process measures to reduce SO<sub>2</sub> emissions.</p> <p>iv) No later than 30 days after completing a planned maintenance outage of the desulfurization unit, submit a report identifying the monitored SO<sub>2</sub> impacts associated with the planned maintenance outage. The report shall include deviations of SO<sub>2</sub> mitigation plan that was submitted for the respective outage period. Should all necessary monitoring data not be available within 15 days following the planned maintenance outage, the report shall be filed 15 days following receipt of the applicable monitoring data. If monitored NAAQS exceedances occur, submit to the Director for approval a mitigation plan for future outages. Such plan shall be submitted within 60 days of submission of the monitored impacts report, and include a commitment by MSC to abide by such plan.</p>	<p>No additional testing is required.</p>

**Attachment O – Monitoring, Reporting, Recordkeeping, and Testing Plans****4. Maintenance Outages (associated with the Desulfurization Unit - continued)**

**MONITORING.** PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

The number of days of Planned Maintenance Outages occur will be tracked: 20 days/year  
The number of hours of Planned Maintenance Outages occur will be tracked: 240 hours/year  
Planned Maintenance Outages will occur in April or November as per SO2 Consent Order.

**RECORDKEEPING/REPORTING/TESTING.** PLEASE DESCRIBE THE PROPOSED RECORDKEEPING, REPORTING, AND TESTING THAT WILL ACCOMPANY THE MONITORING.

As per SO2 SIP Consent Order and Title V permit.

**REPORTING.** PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

**TESTING.** PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

See Attachment D for requirements associated with Outages.

Attachment P

Public Notice

Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

***Affidavit of Publication will be provided after receipt from Weirton Daily Times.***

**AIR QUALITY PERMIT NOTICE  
Notice of Application**

Notice is given that Mountain State Carbon, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a 45 CSR 13 (Regulation 13) Construction and Title V (45CSR30) modification permit to incorporate the recent consent order concerning sulfur dioxide emissions from the facility located on 1851 Main Street, Follansbee in Brooke County, West Virginia. The UTM coordinates are: UTM Easting 533.41 km; UTM Northing 4465.76 km in Zone 17.

The applicant estimates no increase in potential to discharge Regulated Air Pollutants.

Startup of operation under this permit is planned to begin on or about the 01 day of January, 2017. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> 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 1250, during normal business hours.

Dated this the 26th day of February, 2016.

By: Mountain State Carbon LLC  
Lawrence Hermes  
Vice President & Chief Financial Officer  
1851 Main Street  
Follansbee, WV 26037

Attachment S

Title V Revision Information  
Application for NSR Permit and Title V Permit Revision for:  
Sulfur Dioxide SIP Consent Order  
Mountain State Carbon, LLC  
Follansbee, WV

February 2016

Mountain State Carbon, LLC  
 Application for NSR Permit and Title V Permit Revision for SO2 SIP Consent Order  
 February 26, 2016

**Attachment S**

**Title V Permit Revision Information**

<b>1. New Applicable Requirements Summary</b>	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS (Subpart(s) _____)	<input type="checkbox"/> Section 112(d) MACT standards (Subpart(s) _____)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) <sup>(1)</sup>
<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program EGUs (45CSR26)
<sup>(1)</sup> If this box is checked, please include <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why <b>Compliance Assurance Monitoring</b> is not applicable:	

<b>2. Non Applicability Determinations</b>
<input checked="" type="checkbox"/> <b>Permit Shield Requested</b> <i>(not applicable to Minor Modifications)</i>
<p><i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i></p>

**3. Suggested Title V Draft Permit Language**

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision?  Yes  No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

**SO2 SIP Consent Order language – see Attachment D.**

**R13-1939B – see July 29, 2015 application for Permit revision for Permit R13-1939A.**

**R13-2591E – see July 29, 2015 application for Permit revision for Permit R13-2591D.**

**R13-2632A – see July 29, 2015 application for Permit revision for Permit R13-2632.**

**R13-2548B – see July 29, 2015 application for Permit revision for Permit R13-2548B.**

**R13-1652A – see December 14, 2015 application for Administrative Update.**

**4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision**

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
CO-SIP-C-2015-14	08/31/2015	Section II. Order for Compliance (See Attachment D text above)
R13-2548B and R13-2591E	9/22/2015	Administrative Updates
R13-1939B and R13-2632	9/23/2015	Administrative Updates
R13-1652A	<i>pending</i>	Administrative Update

**5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision**

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
R13-2798	07/29/2015	Never installed/obsolete permit
	/ /	

**6. Change in Potential Emissions**

Pollutant	Change in Potential Emissions (+ or -), TPY
See Attachment D.	

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*



Attachment Application Fee

Application Fee

Application for NSR Permit and Title V Permit Revision for:

Sulfur Dioxide SIP Consent Order

Mountain State Carbon, LLC

Follansbee, WV

February 2016

