



VIA FedEx

17 December 2015

Mr. Steve Pursley
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Reference: Moundsville Power, LLC
Class II Administrative Update of Approved Air Permit
(R14-0030A)

Dear Mr. Pursley:

On behalf of Moundsville Power, LLC (Moundsville Power), Environmental Resources Management, Inc. (ERM) is submitting an application (one (1) hard copy and two (2) CDs) for a Class II Administrative Update to the existing air permit (R14-0030A) for Moundsville Power's proposed gas-fired combined-cycle combustion turbine electric power plant in Moundsville, Marshall County, WV.

Moundsville Power's air permit was originally approved by the Department on November 21, 2014. In April 2015, Moundsville Power submitted a Class II Administrative Update pursuant to 45 CSR-13-4 to reflect changes in project equipment and design that evolved following the original air permit approval. The Department approved this Class II Administrative Update on August 14, 2015.

As the project continues to move forward, Moundsville Power is requesting this Class II Administrative Update pursuant to 45 CSR-13-4 to revise several permit requirements to improve fuel diversity and enhance operational flexibility.

Startup and Shutdown

Moundsville Power is proposing to revise the startup and shutdown provisions in Section 4.1.3 of the air permit to improve operational flexibility. Essentially, Moundsville Power wishes to remove the restrictions on the annual number of the different types of startup events, while still maintaining total annual pollutant emissions below the levels specified in the current air permit. The requested revisions are illustrated in the form of markups to the approved air permit in **Appendix 1**.

Fuel Use

The current air permit allows for the firing of natural gas, or a blend of natural gas and up to 25% by volume ethane. However, ethane fuel has become more abundantly available to the plant. Ethane is a locally available, inexpensive, clean fuel resource that may otherwise go unused. To improve the plant's fuel diversity, Moundsville Power is proposing to revise the current air permit provisions relative to ethane firing, as shown in the markups to the approved air permit in **Appendix 1**.

Data from the combustion turbine vendor indicates that increasing the ethane content of the fuel blend to up to 50% by volume can be achieved without the need to change the currently permitted emission rates. As discussed during our December 8, 2015 conference call, Moundsville Power proposes to limit the ethane content of the fuel blend to 50% by volume, with the ability to increase the ethane content above this level if emissions compliance is demonstrated through stack testing.

Emissions

With this Class II Administrative Update, there are no proposed changes in the permitted short term (lb/hr) or annual (tons/yr) emission limits.

Administrative Update

Moundsville Power evaluated the proposed changes described in this submittal with respect to the definition of "modification" in 45 CSR-13-2.17a. Moundsville Power believes that these permit revisions qualify as a Class II Administrative Update under 45 CSR-13-4. There are no changes in the regulatory applicability status of the equipment and facility with respect to the regulatory programs outlined in the original air permit application.

Revised Application Forms

Enclosed in **Appendix 2** are revised versions of the affected application forms that reflect the proposed changes. The following forms are included:

- **Application for NSR Permit (Class II Administrative Update);**
- **Attachment A** - Business Certificate;
- **Attachment C** - Schedule of Installation and Start-up;
- **Attachment G** - Process Description;

- **Attachment I** –Emission Units Table;
- **Attachment J** – Emission Points Data Summary Sheet;
- **Attachment L01** - Emission Unit Data Sheet (CCCT-1);
- **Attachment L02** –Emission Unit Data Sheet (CCCT-2);
- **Attachment L03** –Emission Unit Data Sheet (AB-1);
- **Attachment O** – Monitoring, Recordkeeping, Reporting and Testing Plans; and
- **Attachment P** – Air Quality Permit Notice.

Application Fee

Enclosed in **Appendix 3** is a check in the amount of \$300.00, payable to the “Air Pollution Control Commission Fund”. This is the applicable permit application fee for a Class II administrative update to a valid existing permit pursuant, pursuant to 45 CSR-13-4.4.

Moundsville Power hopes to obtain WVDEP approval in January 2016 to allow us to maintain the project financing and construction schedule. We greatly appreciate the attention you have given to this project, and look forward to working with you to meet this aggressive schedule.

Please call me at (609) 403-7518 or Mr. Jon Perry of ERM at (609) 403-7505 if you have any questions or need any additional information.

Sincerely,



William M. Hanna III, P.E.
Partner

Enclosures

*Appendix 1 - Permit Markups with Requested
Revisions*

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. The Moundsville Power, LLC Moundsville Power Plant shall consist of only the pollutant-emitting equipment and processes identified under Section 1.0 of this permit and any other processes/units defined as De Minimis per 45CSR13. In accordance with the information filed in Permit Application R14-0030, the equipment shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants and the equipment/processes shall use the specified control devices.

4.1.2 Hourly emissions from each combustion turbine/HRSG unit shall not exceed the following (except in cases of startup and shutdown):

Pollutant	Emission Rate (lb/hr)
CO	9.92 (based on a 1 hour average)
NO _x	16.3 (based on a 1 hour average)
PM ⁽¹⁾	8.9
PM ₁₀ ⁽¹⁾	8.9
PM _{2.5} ⁽¹⁾	8.9
SO ₂	0.63
VOCs	5.7
Pb	0.0012
GHGs (CO _{2e})	272,556
H ₂ SO ₄	0.41
HAPs	1.49

¹ Includes both filterable and condensable particulate matter

4.1.3 ← The startup emissions table in Section 4.1.3 as shown below. Please revise the "Startup and Shutdown" emissions table in Section 4.1.3 as shown below. not exceed the following parameters for

Pollutant ¹	Total Startup and Shutdown Emissions (lb/yr)	Annual Emissions (lb/yr) for both turbines combined
NO _x	NO _x	7,904
	CO	3,168
	VOC	376
	PM	2,800
	PM ₁₀	14,048
	PM _{2.5}	2,364

CO	Hot Start	273	416	113,368
	Warm Start	280	96	26,880
	Cold Start	1,381	8	11,048
	Shutdown	175	520	91,000
	Total			242,496
PM ³	Hot Start	2.7	416	1,123
	Warm Start	4.3	96	413
	Cold Start	6	8	48
	Shutdown	1.5	520	780
	Total			2,364
PM ₁₀ ³	Hot Start	2.7	416	1,123
	Warm Start	4.3	96	413
	Cold Start	6	8	48
	Shutdown	1.5	520	780
	Total			2,364
PM _{2.5} ³	Hot Start	2.7	416	1,123
	Warm Start	4.3	96	413
	Cold Start	6	8	48
	Shutdown	1.5	520	780
	Total			2,364
VOCs	Hot Start	55	416	22,880
	Warm Start	50	96	5,376
	Cold Start	380	8	3,040
	Shutdown	46	520	23,920
	Total			55,216

¹ Pollutants not listed in this table are limited to the rates in condition 4.1.1 at all times including startup and shutdown.

² A hot start is defined as a start following 8 hours of shutdown or less. A warm start is defined as a start following at least 8 hours of shutdown but not more than 72 hours of shutdown. A cold start is defined as a start following 72 hours of shutdown or more.

³ Includes both filterable and condensable particulate matter.

4.1.5.1 During startup and shut down the applicant shall minimize the emissions by:

1. Operating and maintaining the turbine/HRSG units and associated air pollution control equipment in accordance with good combustion and air pollution control practices, safe operating practices, and protection of the facility.
2. Implementing operations and maintenance practices comprised of maintaining a high level of operation time, and minimizing events.
3. Operate continuous emission systems and devices re

Each combustion turbine/HRSG unit shall burn only natural gas or a natural gas and ethane mix as fuel. For the combustion turbine/HRSG units, "fuel" shall mean "natural gas or a mix of natural gas and up to 50% by volume ethane or such higher level of ethane for which the permittee has demonstrated emissions compliance during performance testing."

4.1.6 ~~Each combustion turbine/HRSG unit shall burn only pipeline quality natural gas or a pipeline quality natural gas and ethane (25% max by volume) mix as fuel. For the combustion turbine/HRSG unit, "fuel" shall mean "pipeline quality natural gas or a pipeline quality natural gas and ethane (25% max by volume) mix"~~

4.1.7 Each combustion turbine/HRSG unit shall use the emission control devices specified under Table 1.0 at all times when in operation except during periods of startup and shutdown when operating temperatures do not allow for proper use of the emission control devices.

4.1.8 In order to minimize NO_x emissions, within 180 days of startup, the permittee shall determine the optimal injection rate of aqueous ammonia into the SCR. The permittee shall then operate the SCR at the determined injection rate.

4.1.9 Ammonia slip from the SCR shall not exceed 5 ppmvd at 15% O₂ except during periods of startup and shutdown.

4.1.10 Emissions of NO_x from each combustion turbine/HRSG unit shall not exceed one of the following:

4.1.10.1 15 ppmvd at 15% oxygen or;

4.1.10.2 0.43 lb/MW-hr gross energy output.

[40 CFR §60.4320]

4.1.11 Each combustion turbine/HRSG unit shall meet one of the following requirements:

4.1.11.1 The permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output; or

4.1.11.2 The permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

[40 CFR §60.4330(a)]

4.1.12 Visible emissions from the each combustion turbine/HRSG unit shall not exceed 10 opacity based on a six minute block average.

[45CSR§2-3.1.]

4.1.13 Emissions from the auxiliary boiler shall not exceed the following:

Pollutant	lb/hr	tpy
CO	4.00	4.00
NO _x	2.00	2.00
PM	0.50	0.50
PM ₁₀	0.50	0.50
PM _{2.5}	0.50	0.50
SO ₂	0.06	0.06
VOCs	0.60	0.60
GHGs (CO _{2e} basis)	12,081	12,081
H ₂ SO ₄	0.01	0.01
HAPs		

The auxiliary boiler shall burn only natural gas or a natural gas and ethane mix as fuel. For the auxiliary boiler, "fuel" shall mean "natural gas or a mix of natural gas and up to 50% by volume ethane or such higher level of ethane for which the permittee has demonstrated emissions compliance during performance testing."

4.1.14 The auxi
Recircula

4.1.15 ~~The auxiliary boiler shall burn only pipeline quality natural gas or a pipeline quality natural gas and ethane (25% max by volume) mix with an overall maximum sulfur content of 2,000 grains per mmdscf as fuel. For the auxiliary boiler, "fuel" shall mean "pipeline quality natural gas or a pipeline quality natural gas and ethane (25% max by volume) mix with an overall maximum sulfur content of 2,000 grains per mmdscf".~~

4.1.16 The auxiliary boiler shall not consume more than 97,087 scf of fuel per hour nor more than 194,174 mscf of fuel per year.

4.1.17 The auxiliary boiler shall not operate more than 2,000 hours per year nor more than 12 hours in any 24 consecutive hours.

4.1.18 Visible emissions from the auxiliary boiler shall not exceed 10 opacity based on a six minute block average.

[45CSR§2-3.1.]

Appendix 2 - Revised Application Forms

Table of Contents

APPLICATION FOR NSR PERMIT (CLASS II ADMINISTRATIVE UPDATE)

ATTACHMENT A BUSINESS CERTIFICATE

ATTACHMENT C SCHEDULE OF INSTALLATION AND START-UP

ATTACHMENT G PROCESS DESCRIPTION

ATTACHMENT I EMISSION UNITS TABLE

ATTACHMENT J EMISSION POINTS DATA SUMMARY SHEET

ATTACHMENT L EMISSIONS UNIT DATA SHEETS

ATTACHMENT O MONITORING, RECORDKEEPING, REPORTING, AND TESTING
PLANS

ATTACHMENT P AIR QUALITY PERMIT NOTICE

**APPLICATION FOR NSR PERMIT
(CLASS II ADMINISTRATIVE UPDATE)**



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

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.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): Moundsville Power, LLC		2. Federal Employer ID No. (FEIN): 46-1954749	
3. Name of facility (if different from above): Same		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 1401 McKinney Street, Suite 1800 Houston, Texas 77010		5B. Facility's present physical address: N/A	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES, provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – If NO, provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
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 – If YES, please explain: Option to Buy – If NO, you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Electric Power Generation Unit		10. North American Industry Classification System (NAICS) code for the facility: 22112	
11A. DAQ Plant ID No. (for existing facilities only): 051-00188		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): N/A	
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.			

<p>12A.</p> <ul style="list-style-type: none"> For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. <p>Approximately three (3) miles south of Moundsville, West Virginia located between State Route 2 and the Ohio River and adjacent to County Highway 2/19. Former Allied Chemical Plant site.</p>		
<p>12.B. New site address (if applicable): Chemical Plant Access Road South Moundsville, WV 26041</p>	<p>12C. Nearest city or town: Moundsville, WV</p>	<p>12D. County: Marshall</p>
<p>12.E. UTM Northing (KM): 4417.175</p>	<p>12F. UTM Easting (KM): 517.346</p>	<p>12G. UTM Zone: 17</p>
<p>13. Briefly describe the proposed change(s) at the facility: Construction of an electric power generation facility.</p>		
<p>14A. Provide the date of anticipated installation or change: 2nd Quarter 2016</p> <ul style="list-style-type: none"> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / / 		<p>14B. Date of anticipated Start-Up if a permit is granted: 1st Quarter 2019</p>
<p>14C. Provide a Schedule of the planned Installation of/Change to and Start-Up of each of the units proposed in this permit application as Attachment C (if more than one unit is involved).</p>		
<p>15. Provide maximum projected Operating Schedule of activity/activities outlined in this application: Hours Per Day 24 Days Per Week 7 Weeks Per Year 52</p>		
<p>16. Is demolition or physical renovation at an existing facility involved? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>		
<p>17. Risk Management Plans. If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your Risk Management Plan (RMP) to U. S. EPA Region III.</p>		
<p>18. Regulatory Discussion. 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 Attachment D. Please refer to the original air permit application, submitted to WVDEP December 2013, and the Class II Administrative Update, submitted to WVDEP April 2015.</p>		
<p>Section II. Additional attachments and supporting documents.</p>		
<p>19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13). Check for Class II Administrative Update fee (\$300) enclosed in Appendix 4.</p>		
<p>20. Include a Table of Contents as the first page of your application package.</p>		
<p>21. Provide a Plot Plan, 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 Attachment E (Refer to Plot Plan Guidance). Please refer to the original air permit application, submitted to WVDEP December 2013, and the Class II Administrative Update, submitted to WVDEP April 2015.</p> <ul style="list-style-type: none"> Indicate the location of the nearest occupied structure (e.g. church, school, business, residence). 		
<p>22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F. Please refer to the original air permit application, submitted to WVDEP December 2013, and the Class II Administrative Update, submitted to WVDEP April 2015.</p>		
<p>23. Provide a Process Description as Attachment G.</p> <ul style="list-style-type: none"> Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable). 		
<p>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</p>		

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.
Please refer to the original air permit application, submitted to WVDEP December 2013.

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 the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.
Please refer to the original air permit application, submitted to WVDEP December 2013.

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

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input checked="" type="checkbox"/> Indirect Heat Exchanger	
<input type="checkbox"/> General Emission Unit, specify		

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

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

<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System

Other Collectors, specify **Please refer to the original air permit application, submitted to WVDEP December 2013, and the Class II Administrative Update, submitted to WVDEP April 2015.**

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. **Please refer to the original air permit application, submitted to WVDEP December 2013, and the Class II Administrative Update, submitted to WVDEP April 2015.**

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:

<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> 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.

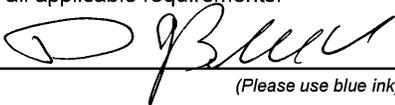
35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

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: 12/17/2015
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Dirk Straussfeld		35C. Title: EVP & Chief Operating Officer
35D. E-mail: DStraussfeld@quantumug.com	36E. Phone: (713) 485-8650	36F. FAX: (713) 485-8651
36A. Printed name of contact person (if different from above): Same		36B. Title:
36C. E-mail:	36D. Phone:	36E. FAX:

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 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 type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s)
<input type="checkbox"/> Attachment D: Regulatory Discussion	<input type="checkbox"/> Attachment N: Supporting Emissions Calculations
<input 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 checked="" 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 type="checkbox"/> Attachment S: Title V Permit Revision Information
<input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet	<input checked="" type="checkbox"/> Attachment 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
BUSINESS CERTIFICATE

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

ISSUED TO:
**MOUNDSVILLE POWER, LLC
CHEMICAL PLANT ACCESS RD S
MOUNDSVILLE, WV 26041-0000**

BUSINESS REGISTRATION ACCOUNT NUMBER: **2280-1137**

This certificate is issued on: **09/23/2013**

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

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

This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

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

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

ATTACHMENT C
SCHEDULE OF INSTALLATION AND START-UP

Attachment C

Schedule of Installation and Start-up

Moundsville Power has tentatively scheduled to begin construction related activities during the second quarter of 2016. Final installation of equipment and start-up of the facility is tentatively scheduled for the first quarter of 2019. This schedule may vary depending on actual delivery of equipment, unforeseen construction delays, etc.

ATTACHMENT G
PROCESS DESCRIPTION

Attachment G

Process Description

The Moundsville Power Plant will generate approximately 631 megawatts (MW)¹ of electricity that will be sold on the Pennsylvania-New Jersey-Maryland Interconnection LLC (PJM) regional electric grid. The plant's combustion turbines will be fueled by natural gas, ethane, or a blend of the two fuels. Fuel will be purchased from local suppliers, and will take advantage of the gas produced in nearby natural gas shale plays.

Electricity will be generated using two (2) combined-cycle combustion turbines (CCCT-1 and CCCT-2) each rated at 197 MW (at various ambient temperature design conditions) and 2,232 million Btu per hour (MMBtu/hr)². Electricity generated by the combustion turbines will be routed through a local electrical substation and sold on the grid.

To enhance the plant's overall efficiency and increase the amount of electric generated by the plant, the hot exhaust gases from the combustion turbines is routed to downstream Heat Recovery Steam Generators (HRSGs). The HRSGs contain a series of heat exchangers designed to recover the heat from the turbines' exhaust gas and produce steam, as in a boiler. Each combustion turbine will have its own HRSG. Cooled exhaust gas passing through the HRSGs is vented to the atmosphere through emission points CCCT-1 and CCCT-2. The Selective Catalytic Reduction (SCR) and Oxidation Catalyst control devices used to reduce NO_x and CO emissions from the combustion turbines will be incorporated into the HRSGs, at locations where the emission control reactions optimally occur.

¹ Plant output varies by several factors, including ambient temperature, relative humidity, fuel, load level, whether duct firing or evaporative cooling are in use, etc. 630.874 MW is the expected plant output at a 40°F ambient temperature design condition, 60% relative humidity, at base load, firing a natural gas/ethane fuel mix, with 65% duct firing, and with the combustion turbine evaporative cooling systems off.

² Combustion turbine output and heat input vary by several factors, including ambient temperature, relative humidity, fuel, load level, whether duct firing or evaporative cooling are in use, etc. 196.9 MW is the expected combustion turbine output under several operating cases. 2,232 MMBtu/hr is the expected heat input for a single combustion turbine at a 40°F ambient temperature design condition, 60% relative humidity, at base load, firing natural gas, with 100% duct firing, and with the evaporative cooling system off (Case 45).

The SCRs involve the injection of aqueous ammonia (NH_3) with a concentration of less than 20% by weight into the combustion turbine exhaust gas streams. Ammonia reacts with NO_x in the exhaust gas stream, reducing it to elemental nitrogen (N_2) and water vapor (H_2O). The aqueous ammonia will be stored on-site in one (1) storage tank, with a capacity of 20,000 gallons. The aqueous ammonia storage tank will not normally vent to the atmosphere. It will be equipped with pressure relief valves that would only vent in the event of an emergency. The Oxidation Catalysts do not require the use of chemical reagents.

Steam generated in the HRSGs is routed to a steam driven electric generator. This generator produces up to an additional 237 MW³ of electricity that is also sold on the grid. Electricity generated by the two (2) combustion turbines and the single steam generator represent the plant's total electrical output.

Water from the plant's wet, mechanical draft Cooling Tower is used to cool the steam driven electric generator. Make-up water is added to the Cooling Tower as necessary to account for water evaporated in the Cooling Tower. Exhaust from the Cooling Tower is vented through emission point CT-1. Steam condensate from the steam generator is routed back to the HRSGs for reuse in the steam cycle.

Support equipment will also be used by the plant to assist with facility operations. A 100 MMBtu/hr Auxiliary Boiler is used to produce steam for plant support. In addition, a 1,500 kW (approximately 2,000 hp) Emergency Generator (EG-1) is used for emergency backup electric power, and a 500 hp Fire Water Pump (FP-1) will be used for plant fire protection. Both the Emergency Generator and the Fire Water Pump will run on ultra low sulfur diesel (ULSD) fuel, and will be periodically operated for short periods per manufacturer's maintenance instructions to ensure operational readiness in the event of an emergency. The ULSD fuel will be stored in two (2) small storage tanks; the 500 gallon Fire Water Pump Tank (ST-1), and the 3,000 gallon Emergency Generator Tank (ST-2).

³ Steam turbine generator output input varies by several factors, including ambient temperature, relative humidity, combustion turbine fuel, load level, whether duct firing or evaporative cooling are in use, etc. 237.074 MW is the expected steam turbine generator output at a 40°F ambient temperature design condition, at 60% relative humidity, with the combustion turbines at base load, firing a natural gas/ethane fuel mix, with 65% duct firing, and the evaporative cooling systems off (Case 108).

ATTACHMENT I
EMISSION UNITS TABLE

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices
that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
EQUIPMENT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE						
CCCT-1	CCCT-1	Combined-Cycle Combustion Turbine	2017	2,232 MMBtu/hr	New	DLNC & SCR, Oxidation Catalyst
CCCT-2	CCCT-2	Combined-Cycle Combustion Turbine	2017	2,232 MMBtu/hr	New	DLNC & SCR, Oxidation Catalyst
NA	NA	CCCT-1 Heat Recovery Steam Generator with Duct Burners	2017	187.61 MMBtu/hr	New	NA
NA	NA	CCCT-2 Heat Recovery Steam Generator with Duct Burners	2017	187.61 MMBtu/hr	New	NA
NA	NA	Steam Turbine Electric Generator	2017	237 MW	New	NA
AB-1	AB-1	Auxiliary Boiler	2017	100 MMBtu/hr	New	ULNB, FGR
EQUIPMENT NOT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE						
CT-1	CT-1	Cooling Tower	2017	164,110 gpm	New	NA
FP-1	FP-1	Firewater Pump	2017	500 hp	New	NA
EG-1	EG-1	Emergency Electric Generator	2017	1,500 kW	New	NA
ST-1	ST-1	Fire Water Pump Tank (ULSD)	2017	500 gallons	New	NA
ST-2	ST-2	Emergency Generator Tank (ULSD)	2017	3,000 gallons	New	NA
NA	NA	Aqueous Ammonia Storage Tank 1	2017	20,000 gallons	New	NA

¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.

² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal

⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

ATTACHMENT J
EMISSION POINTS DATA SUMMARY SHEET

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EQUIPMENT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE															
CCCT-1	Upward Vertical Stack	CCCT-1	Comb. Cycle Combust. Turbine	NA	Low NOx Burners & SCR, Oxidation Catalyst	C	8,760	NO _x	112.0	494.1	16.3	74.9	Gas	EE	4.2
								CO	32.5	203.0	9.9	104.1	Gas	EE	2.6
								Total VOC	5.7	38.6	5.7	38.6	Gas	EE	1.5
								PM/PM ₁₀ /PM _{2.5}	8.9	39.6	8.9	39.6	Solid	EE	2.3
								SO ₂	0.63	2.8	0.63	2.8	Gas	EE	0.2
								Sulfur Acid Mist	0.41	1.8	0.41	1.8	Solid	EE	0.1
								Lead	0.001	0.005	0.001	0.005	Solid	AP-42	<0.001
								Acetaldehyde	0.09	0.39	0.08	0.35	Gas	AP-42	0.02
								Acrolein	0.01	0.06	0.01	0.05	Gas	AP-42	0.003
								Benzene	0.03	0.12	0.02	0.11	Gas	AP-42	0.006
								Ethylbenzene	0.07	0.31	0.06	0.28	Gas	AP-42	0.02
								Formaldehyde	0.67	2.99	0.61	2.69	Gas	AP-42	0.2
								Hexane	0.33	1.43	0.3	1.29	Gas	AP-42	0.08
								Naphthalene	0.003	0.013	0.003	0.01	Gas	AP-42	0.001
								POM	0.005	0.021	0.004	0.19	Gas	AP-42	0.001
								Toluene	0.29	1.27	0.26	1.14	Gas	AP-42	0.07
								Xylenes	0.14	0.63	0.13	0.56	Gas	AP-42	0.03
								Total HAP	1.66	7.25	1.49	6.53	Gas	AP-42	0.4
								CO _{2e}	272,556	1,193,797	272,556	1,193,797	Gas	Sub. C	70,459
CCCT-2	Upward Vertical Stack	CCCT-2	Comb. Cycle Combust. Turbine	NA	Low NOx Burners & SCR, Oxidation Catalyst	C	8,760	NO _x	112.0	494.1	16.3	74.9	Gas	EE	4.2
								CO	32.5	203.0	9.9	104.1	Gas	EE	2.6
								Total VOC	5.7	38.6	5.7	38.6	Gas	EE	1.5
								PM/PM ₁₀ /PM _{2.5}	8.9	39.6	8.9	39.6	Solid	EE	2.3
								SO ₂	0.63	2.8	0.63	2.8	Gas	EE	0.2
								Sulfur Acid Mist	0.41	1.8	0.41	1.8	Solid	EE	0.1
								Lead	0.001	0.005	0.001	0.005	Solid	AP-42	<0.001
								Acetaldehyde	0.09	0.39	0.08	0.35	Gas	AP-42	0.02
								Acrolein	0.01	0.06	0.01	0.05	Gas	AP-42	0.003
								Benzene	0.03	0.12	0.02	0.11	Gas	AP-42	0.006
								Ethylbenzene	0.07	0.31	0.06	0.28	Gas	AP-42	0.02
								Formaldehyde	0.67	2.99	0.61	2.69	Gas	AP-42	0.2
								Hexane	0.33	1.43	0.3	1.29	Gas	AP-42	0.08
								Naphthalene	0.003	0.013	0.003	0.01	Gas	AP-42	0.001
								POM	0.005	0.021	0.004	0.19	Gas	AP-42	0.001
								Toluene	0.29	1.27	0.26	1.14	Gas	AP-42	0.07
								Xylenes	0.14	0.63	0.13	0.56	Gas	AP-42	0.03
								Total HAP	1.66	7.25	1.49	6.53	Gas	AP-42	0.4
								CO _{2e}	272,556	1,193,797	272,556	1,193,797	Gas	Sub. C	70,459

For turbines CCCT-1 and CCCT-2, annual NOx, CO, VOC, and PM represents combined steady state, start-up, and shutdown emission rates

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EQUIPMENT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE															
AB-1	Upward Vertical Stack	AB-1	Aux. Boiler	NA	Ultra Low NOx Burners & FGR	As Required	2,000	NO _x	4.00	4.00	2.00	2.00	Gas	EE	5.3
								CO	4.00	4.00	4.00	4.00	Gas	EE	11
								Total VOC	0.60	0.60	0.60	0.60	Gas	EE	1.6
								PM/PM ₁₀ /PM _{2.5}	0.50	0.50	0.50	0.50	Gas	EE	1.3
								SO ₂	0.06	0.06	0.06	0.06	Gas	AP-42	0.2
								Sulfuric Acid Mist	0.005	0.005	0.005	0.005	Solid	EE	0.01
								Lead	<0.001	<0.001	<0.001	<0.001	Solid	AP-42	0.003
								Benzene	<0.001	<0.001	<0.001	<0.001	Gas	AP-42	0.003
								Formaldehyde	0.007	0.007	0.007	0.007	Gas	AP-42	0.02
								Hexane	0.18	0.18	0.18	0.18	Gas	AP-42	0.5
								Toluene	<0.001	<0.001	<0.001	<0.001	Gas	AP-42	0.003
								Total HAP	0.18	0.18	0.18	0.18	Gas	AP-42	0.5
								CO _{2e}	12,081	12,081	12,081	12,081	Gas	Sub. C	32,247

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. <i>(Must match Emission Units Table & Plot Plan)</i>	Emission Point Type ¹	Emission Unit Vented Through This Point <i>(Must match Emission Units Table & Plot Plan)</i>		Air Pollution Control Device <i>(Must match Emission Units Table & Plot Plan)</i>		Vent Time for Emission Unit <i>(chemical processes only)</i>		All Regulated Pollutants - Chemical Name/CAS ³ <i>(Speciate VOCs & HAPS)</i>	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase <i>(At exit conditions, Solid, Liquid or Gas/Vapor)</i>	Est. Method Used ⁶	Emission Concentration ⁷ (mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EQUIPMENT NOT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE															
CT-1	NA	CT-1	Cooling Tower	NA	NA	C	8,760	PM PM ₁₀ PM _{2.5}	0.99 0.57 0.01	4.34 2.48 0.01	0.99 0.57 0.01	4.34 2.48 0.01	Solid Solid Solid	EE EE EE	0.18 0.1 <0.001
FP-1	Exhaust	FP-1	Fire Water Pump	NA	NA	As Required	500	NO _x CO Total VOC PM/PM ₁₀ / PM _{2.5} SO ₂ Acetaldehyde Benzene Formaldehyde Toluene Total HAP CO _{2e}	2.98 2.87 0.33 0.17 0.01 0.003 0.003 0.004 <0.001 0.01 596	0.74 0.72 0.08 0.04 0.01 <0.001 <0.001 <0.001 <0.001 0.01 149	2.98 2.87 0.33 0.17 0.01 0.003 0.003 0.004 <0.001 0.01 596	0.74 0.72 0.08 0.04 0.01 <0.001 <0.001 <0.001 <0.001 0.01 149	Gas Gas Gas Gas Gas Gas Gas Gas Gas Gas	O- NSPS O- NSPS O- NSPS O- NSPS MB AP-42 AP-42 AP-42 AP-42 Sub. C	294 283 33 16 1.0 0.3 0.3 0.4 0.1 1.4 58,968
EG-1	Exhaust	EG-1	Emerg. Electric Gen.	NA	NA	As Required	500	NO _x CO Total VOC PM/PM ₁₀ /PM _{2.5} SO ₂ Benzene Formaldehyde Toluene Xylenes Total HAP CO _{2e}	11.18 11.53 1.24 0.40 0.02 0.01 0.001 0.004 0.003 0.03 2,416	2.79 2.88 0.31 0.10 0.006 0.003 <0.001 0.001 <0.001 0.006 604	11.18 11.53 1.24 0.40 0.02 0.01 0.001 0.004 0.003 0.03 2,416	2.79 2.88 0.31 0.10 0.006 0.003 <0.001 0.001 <0.001 0.006 604	Gas Gas Gas Gas Gas Gas Gas Gas Gas Gas	O- NSPS O- NSPS O- NSPS MB AP-42 AP-42 AP-42 AP-42 Sub. C	298 308 33 11 0.5 0.3 0.03 0.1 0.08 0.8 64,488
ST-1	Upward Vertical Stack	ST-1	Diesel Storage Tank	NA	NA	C	8,760	Total VOC	<0.001	<0.001	<0.001	<0.001	Gas	AP-42	NA
ST-2	Upward Vertical Stack	ST-2	Diesel Storage Tank	NA	NA	C	8,760	Total VOC	<0.001	<0.001	<0.001	<0.001	Gas	AP-42	NA

Attachment J

EMISSION POINTS DATA SUMMARY SHEET

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

- ¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- ² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- ³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.
- ⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- ⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- ⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- ⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
<i>EQUIPMENT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE</i>								
CCGT-1	18.5	161.3	1,032,733	64	720	175.0	4,417.182	517.364
CCGT-2	18.5	161.3	1,032,733	64	720	175.0	4,417.167	517.327
AB-1	3.5	300	100,000	173	720	42	4,417.229	517.395
<i>EQUIPMENT NOT INCLUDED IN CLASS II ADMINISTRATIVE UPDATE</i>								
CT-1⁽¹⁾	40	66	1,450,000	19.2	720	60	4,417.099	517.447
FP-1	0.5	900	2,700	229	720	11	4,417.151	517.373
EG-1	1.5	900	10,000	94	720	13	4,417.299	517.339
ST-1	NA	Ambient	NA	NA	720	NA	4,417.151	517.373
ST-2	NA	Ambient	NA	NA	720	NA	4,417.299	517.339

(1) Cooling tower diameter, flow, and velocity are per individual cell.

ATTACHMENT L
EMISSIONS UNIT DATA SHEETS

Attachment L
Emission Unit Data Sheet
 (INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form):

Equipment Information: Combined Cycle Gas Turbine CCCT-1

1. Manufacturer: GE or equivalent	2. Model No. F Class Serial No. NA
3. Number of units: 1	4. Use – Electric Generation
5. Rated Boiler Horsepower: NA hp	6. Boiler Serial No.: NA
7. Date constructed: 2017	8. Date of last modification and explain: NA
9. Maximum design heat input per unit: 2,232 ×10 ⁶ BTU/hr	10. Peak heat input per unit: 2,232 ×10 ⁶ BTU/hr
11. Steam produced at maximum design output: NA LB/hr NA psig	12. Projected Operating Schedule: Hours/Day 24 Days/Week 7 Weeks/Year 52
13. Type of firing equipment to be used: <input type="checkbox"/> Pulverized coal <input type="checkbox"/> Spreader stoker <input type="checkbox"/> Oil burners <input checked="" type="checkbox"/> Natural Gas Burner <input type="checkbox"/> Others, specify	14. Proposed type of burners and orientation: <input type="checkbox"/> Vertical <input type="checkbox"/> Front Wall <input type="checkbox"/> Opposed <input type="checkbox"/> Tangential <input checked="" type="checkbox"/> Others, specify Dry Low NO_x Burners
15. Type of draft: <input checked="" type="checkbox"/> Forced <input type="checkbox"/> Induced	16. Percent of ash retained in furnace: NA %
17. Will flyash be reinjected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18. Percent of carbon in flyash: NA %

Stack or Vent Data

19. Inside diameter or dimensions: 18.5 ft.	20. Gas exit temperature: 160-183 °F
21. Height: 175.0 ft.	22. Stack serves: <input checked="" type="checkbox"/> This equipment only <input type="checkbox"/> Other equipment also (submit type and rating of all other equipment exhausted through this stack or vent)
23. Gas flow rate: 685,767-1,114,433 actual ft ³ /min	
24. Estimated percent of moisture: NA %	

Emissions Stream

37. What quantities of pollutants will be emitted from the boiler before controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	32.5	NA	NA	NA
Hydrocarbons	NA	NA	NA	NA
NO _x	112.0	NA	NA	NA
Pb	0.0012	NA	NA	NA
PM/PM ₁₀ /PM _{2.5}	8.9	NA	NA	NA
SO ₂	0.63	NA	NA	NA
VOCs	5.7	NA	NA	NA
Total HAPs	1.66	NA	NA	NA
CO _{2e}	272,556	NA	NA	NA
Sulfuric Acid Mist	0.41	NA	NA	NA

Emissions represent hourly steady state emission rates only.

38. What quantities of pollutants will be emitted from the boiler after controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	9.92	NA	NA	NA
Hydrocarbons	NA	NA	NA	NA
NO _x	16.3	NA	NA	NA
Pb	0.0012	NA	NA	NA
PM/PM ₁₀ /PM _{2.5}	8.9	NA	NA	NA
SO ₂	0.63	NA	NA	NA
VOCs	5.7	NA	NA	NA
Total HAPs	1.49	NA	NA	NA
CO _{2e}	272,556	NA	NA	NA
Sulfuric Acid Mist	0.41	NA	NA	NA

Emissions represent hourly steady state emission rates only.

39. How will waste material from the process and control equipment be disposed of?

NA

40. Have you completed an *Air Pollution Control Device Sheet(s)* for the control(s) used on this Emission Unit.

41. Have you included the ***air pollution rates*** on the Emissions Points Data Summary Sheet?

42. 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.

MONITORING PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

See Attachment O

TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.

See Attachment O

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

See Attachment O

REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.

See Attachment O

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

NA

Attachment L
Emission Unit Data Sheet
(INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form):

Equipment Information: Combined Cycle Gas Turbine CCCT-2

1. Manufacturer: GE or equivalent	2. Model No. F Class Serial No. NA
3. Number of units: 1	4. Use – Electric Generation
5. Rated Boiler Horsepower: NA hp	6. Boiler Serial No.: NA
7. Date constructed: 2017	8. Date of last modification and explain: NA
9. Maximum design heat input per unit: 2,232 ×10 ⁶ BTU/hr	10. Peak heat input per unit: 2,232 ×10 ⁶ BTU/hr
11. Steam produced at maximum design output: NA LB/hr NA psig	12. Projected Operating Schedule: Hours/Day 24 Days/Week 7 Weeks/Year 52
13. Type of firing equipment to be used: <input type="checkbox"/> Pulverized coal <input type="checkbox"/> Spreader stoker <input type="checkbox"/> Oil burners <input checked="" type="checkbox"/> Natural Gas Burner <input type="checkbox"/> Others, specify	14. Proposed type of burners and orientation: <input type="checkbox"/> Vertical <input type="checkbox"/> Front Wall <input type="checkbox"/> Opposed <input type="checkbox"/> Tangential <input checked="" type="checkbox"/> Others, specify Dry Low NO_x Burners
15. Type of draft: <input checked="" type="checkbox"/> Forced <input type="checkbox"/> Induced	16. Percent of ash retained in furnace: NA %
17. Will flyash be reinjected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18. Percent of carbon in flyash: NA %

Stack or Vent Data

19. Inside diameter or dimensions: 18.5 ft.	20. Gas exit temperature: 160-183 °F
21. Height: 175.0 ft.	22. Stack serves: <input checked="" type="checkbox"/> This equipment only <input type="checkbox"/> Other equipment also (submit type and rating of all other equipment exhausted through this stack or vent)
23. Gas flow rate: 685,767-1,114,433 actual ft ³ /min	
24. Estimated percent of moisture: NA %	

Emissions Stream

37. What quantities of pollutants will be emitted from the boiler before controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	32.5	NA	NA	NA
Hydrocarbons	NA	NA	NA	NA
NO _x	112.0	NA	NA	NA
Pb	0.0012	NA	NA	NA
PM/PM ₁₀ /PM _{2.5}	8.9	NA	NA	NA
SO ₂	0.63	NA	NA	NA
VOCs	5.7	NA	NA	NA
Total HAPs	1.66	NA	NA	NA
CO _{2e}	272,556	NA	NA	NA
Sulfuric Acid Mist	0.41	NA	NA	NA

Emissions represent hourly steady state emission rates only.

38. What quantities of pollutants will be emitted from the boiler after controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	9.92	NA	NA	NA
Hydrocarbons	NA	NA	NA	NA
NO _x	16.3	NA	NA	NA
Pb	0.0012	NA	NA	NA
PM/PM ₁₀ /PM _{2.5}	8.9	NA	NA	NA
SO ₂	0.63	NA	NA	NA
VOCs	5.7	NA	NA	NA
Total HAPs	1.49	NA	NA	NA
CO _{2e}	272,556	NA	NA	NA
Sulfuric Acid Mist	0.41	NA	NA	NA

Emissions represent hourly steady state emission rates only.

39. How will waste material from the process and control equipment be disposed of?

NA

40. Have you completed an *Air Pollution Control Device Sheet(s)* for the control(s) used on this Emission Unit.

41. Have you included the ***air pollution rates*** on the Emissions Points Data Summary Sheet?

42. 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.

MONITORING PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

See Attachment O

TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.

See Attachment O

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

See Attachment O

REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.

See Attachment O

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

NA

Attachment L
Emission Unit Data Sheet
 (INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form):

Equipment Information: Auxiliary Boiler AB-1

1. Manufacturer: TBD	2. Model No. NA Serial No. NA
3. Number of units: 1	4. Use – Steam Production
5. Rated Boiler Horsepower: NA hp	6. Boiler Serial No.: NA
7. Date constructed: 2017	8. Date of last modification and explain: NA
9. Maximum design heat input per unit: 100 ×10 ⁶ BTU/hr	10. Peak heat input per unit: 100 ×10 ⁶ BTU/hr
11. Steam produced at maximum design output: NA LB/hr NA psig	12. Projected Operating Schedule: Hours/Day 24 Days/Week 7 Weeks/Year 52
13. Type of firing equipment to be used: <input type="checkbox"/> Pulverized coal <input type="checkbox"/> Spreader stoker <input type="checkbox"/> Oil burners <input checked="" type="checkbox"/> Natural Gas Burner <input type="checkbox"/> Others, specify	14. Proposed type of burners and orientation: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Front Wall <input type="checkbox"/> Opposed <input type="checkbox"/> Tangential <input type="checkbox"/> Others, specify
15. Type of draft: <input checked="" type="checkbox"/> Forced <input type="checkbox"/> Induced	16. Percent of ash retained in furnace: NA %
17. Will flyash be reinjected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18. Percent of carbon in flyash: NA %

Stack or Vent Data

19. Inside diameter or dimensions: 3.5 ft.	20. Gas exit temperature: 300 °F
21. Height: 42 ft.	22. Stack serves: <input checked="" type="checkbox"/> This equipment only <input type="checkbox"/> Other equipment also (submit type and rating of all other equipment exhausted through this stack or vent)
23. Gas flow rate: 100,000 ft ³ /min	
24. Estimated percent of moisture: NA %	

Emissions Stream

37. What quantities of pollutants will be emitted from the boiler before controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	4.00	NA	NA	NA
Hydrocarbons	NA	NA	NA	NA
NO _x	2.00	NA	NA	NA
Pb	<0.001	NA	NA	NA
PM/PM ₁₀ /PM _{2.5}	0.50	NA	NA	NA
SO ₂	0.06	NA	NA	NA
VOCs	0.60	NA	NA	NA
Total HAPs	0.19	NA	NA	NA
CO _{2e}	12,081	NA	NA	NA
Sulfuric Acid Mist	0.01	NA	NA	NA

38. What quantities of pollutants will be emitted from the boiler after controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	4.00	NA	NA	NA
Hydrocarbons	NA	NA	NA	NA
NO _x	2.00	NA	NA	NA
Pb	<0.001	NA	NA	NA
PM/PM ₁₀ /PM _{2.5}	0.50	NA	NA	NA
SO ₂	0.06	NA	NA	NA
VOCs	0.60	NA	NA	NA
Total HAPs	0.19	NA	NA	NA
CO _{2e}	12,081	NA	NA	NA
Sulfuric Acid Mist	0.01	NA	NA	NA

39. How will waste material from the process and control equipment be disposed of?

NA

40. Have you completed an *Air Pollution Control Device Sheet(s)* for the control(s) used on this Emission Unit.

41. Have you included the **air pollution rates** on the Emissions Points Data Summary Sheet?

42. 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.

MONITORING PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

See Attachment O

TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.

See Attachment O

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

See Attachment O

REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.

See Attachment O

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

NA

ATTACHMENT O
MONITORING, RECORDKEEPING, REPORTING, AND
TESTING PLANS

Attachment O

Monitoring, Recordkeeping, Reporting and Testing Plans

The monitoring, recordkeeping, reporting, and testing requirements are as specified in the existing approval air permit (R14-0030A). No changes to these requirements are proposed for this Administrative Update.

ATTACHMENT P
AIR QUALITY PERMIT NOTICE

Attachment P
AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Moundsville Power, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class II Administrative Update to the approved Air Permit-to-Construct (R14-0030A), for an electric power generation facility located on State Route 2, south of Moundsville, in Marshall County, West Virginia. The latitude and longitude coordinates are: 39.90447 and -80.79707. The applicant estimates there will be no net increase in potential to discharge Regulated Air Pollutants. Startup of operation is expected to occur in the 1st quarter of 2018. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice. Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the **(day)** day of December, 2015.

By: Moundsville Power, LLC
Dirk Straussfeld
EVP & Chief Operating Officer
1401 McKinney Street, Suite 1800
Houston, Texas 77010

*Appendix 3 - Check for Class II Administrative
Update Fee*