



A unit of American Electric Power
Mountaineer Plant
P. O. Box 419
New Haven, WV 25265
304-882-2151

March 3, 2015

Mr. Jay Fedczak
Title V Program Manager
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, S.E.
Charleston, West Virginia 25304

Re: 45 CSR 13 Class I Administrative Update and
45 CSR 30 Permit Modification Application
Plant ID# 053-00009

Dear Mr. Fedczak,

In accordance with 45 CSR 13 at 4.2.a.4, enclosed are a hard copy and an electronic copy (on CD) of the Class I Administrative Update and the Regulation 30 Permit Renewal Application for Appalachian Power Company's Mountaineer Plant. The subject application is for a voluntary heat input capacity limit for the auxiliary boilers (Sources 2S and 3S) located near New Haven, WV in Mason County.

Please contact Jeff Novotny at (614) 716-1294 or Dave Thompson at (304) 882-4023 if you have any questions.

Very truly yours,

A handwritten signature in blue ink that reads 'Debra L. Osborne'.

Debra L. Osborne
Plant Manager, Mountaineer Plant

Enclosure

Mr. Jay Fedczak
Title V Program Manager
West Virginia Department of Environmental Protection
Division of Air Quality
March 3, 2015
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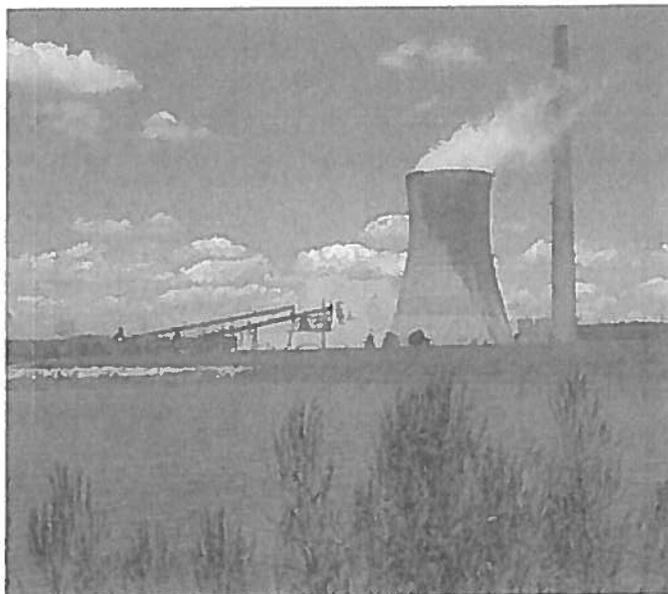
Re: 45 CSR 13 and 45 CSR 30 Permit Application
Plant ID# 053-00009

bc w/ electronic attachment only:

J.C. Hendricks
J.P. Novotny
R.D. Thompson
J.J. Henry

Appalachian Power Company Mountaineer Plant

Regulation 13 Class I Administrative Update Application; Regulation 30 Minor Permit Modification (40 CFR Part 63 Subpart DDDDD)



Prepared By:

American Electric Power
Environmental Services
1 Riverside Plaza
Columbus, Ohio 43215
February 2015

Mountaineer Plant
Class II Administrative Update Application

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.wvdep.org/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): Appalachian Power Company		2. Federal Employer ID No. (FEIN): 9 1 1 0 3 0 5 0 9	
3. Name of facility (if different from above): Mountaineer Plant		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: Appalachian Power Company American Electric Power 1 Riverside Plaza Columbus, Ohio 43215		5B. Facility's present physical address: Approximately 1-mile east of New Haven, West Virginia on State Route 62	
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: American Electric Power Company, Inc.			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO - If YES, please explain: Applicant owns this site. This application is for installation of additional equipment for the limestone processing system. - 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.): Installation of a material handling system to break apart frozen limestone during cold winter periods.		10. Standard Industrial Classification (SIC) code for the facility: 4911	
11A. DAQ Plant ID No. (for existing facilities only): 0 5 3 - 0 0 0 0 9		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-0075F, R30-05300009-2014	

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

12A.

- For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction** or **Relocation permits**, please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP as Attachment B**.

Facility is located on State Route 62, approximately 1-mile east of New Haven, West Virginia. See map in Attachment B.

12.B. New site address (if applicable):

Not Applicable

12C. Nearest city or town:

New Haven, West Virginia

12D. County:

Mason County

12.E. UTM Northing (KM): 4314.7 km

12F. UTM Easting (KM): 419.04 km

12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:

The facility is requesting a voluntary heat input capacity limit (10% of total capacity) on an annual basis to meet the definition of a limited use boiler in 40 CFR 63 Subpart DDDDD.

14A. Provide the date of anticipated installation or change: 01/31/2016

- If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: / /

14B. Date of anticipated Start-Up if a permit is granted:

01/31/2016

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).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:

Hours Per Day 12 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? YES NO

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. Not Applicable

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (*if known*). 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 (*if known*). Provide this information as **Attachment D**.

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

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**).

- Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F**.

23. Provide a **Process Description** as **Attachment G**.

- 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 the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

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 type="checkbox"/> Indirect Heat Exchanger | |
- General Emission Unit, specify – Auxiliary Boilers 1 and 2

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

29. Check all applicable **Air Pollution Control Device Sheets** listed below: Not Applicable

- | | | |
|---|---|--|
| <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

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:

- | | |
|--|---|
| <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**. Not Applicable, Responsible Official is signatory.

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 Debra L Osborne DATE: 3/3/15
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Debra L. Osborne		35C. Title: Manager, Mountaineer Plant
35D. E-mail: dlosborne@aep.com	36E. Phone: 304-882-4100	36F. FAX:
36A. Printed name of contact person (if different from above): John C. Hendricks		36B. Title: Manager, Air Quality Services
36C. E-mail: padalporto@aep.com	36D. Phone: (614) 716-1238	36E. FAX: (614) 716-1252

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 type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" 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 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 type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input 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

WV Business Registration

State of West Virginia



Certificate

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

APPALACHIAN POWER COMPANY

a corporation formed under the laws of Virginia filed an application to be registered as a foreign corporation authorizing it to transact business in West Virginia. The application was found to conform to law and a "Certificate of Authority" was issued by the West Virginia Secretary of State on March 08, 1926.

I further certify that the corporation has not been revoked by the State of West Virginia nor has a Certificate of Withdrawal been issued to the corporation by the West Virginia Secretary of State.

Accordingly, I hereby issue this

CERTIFICATE OF AUTHORIZATION

Validation ID:2WV1G_CK2GX



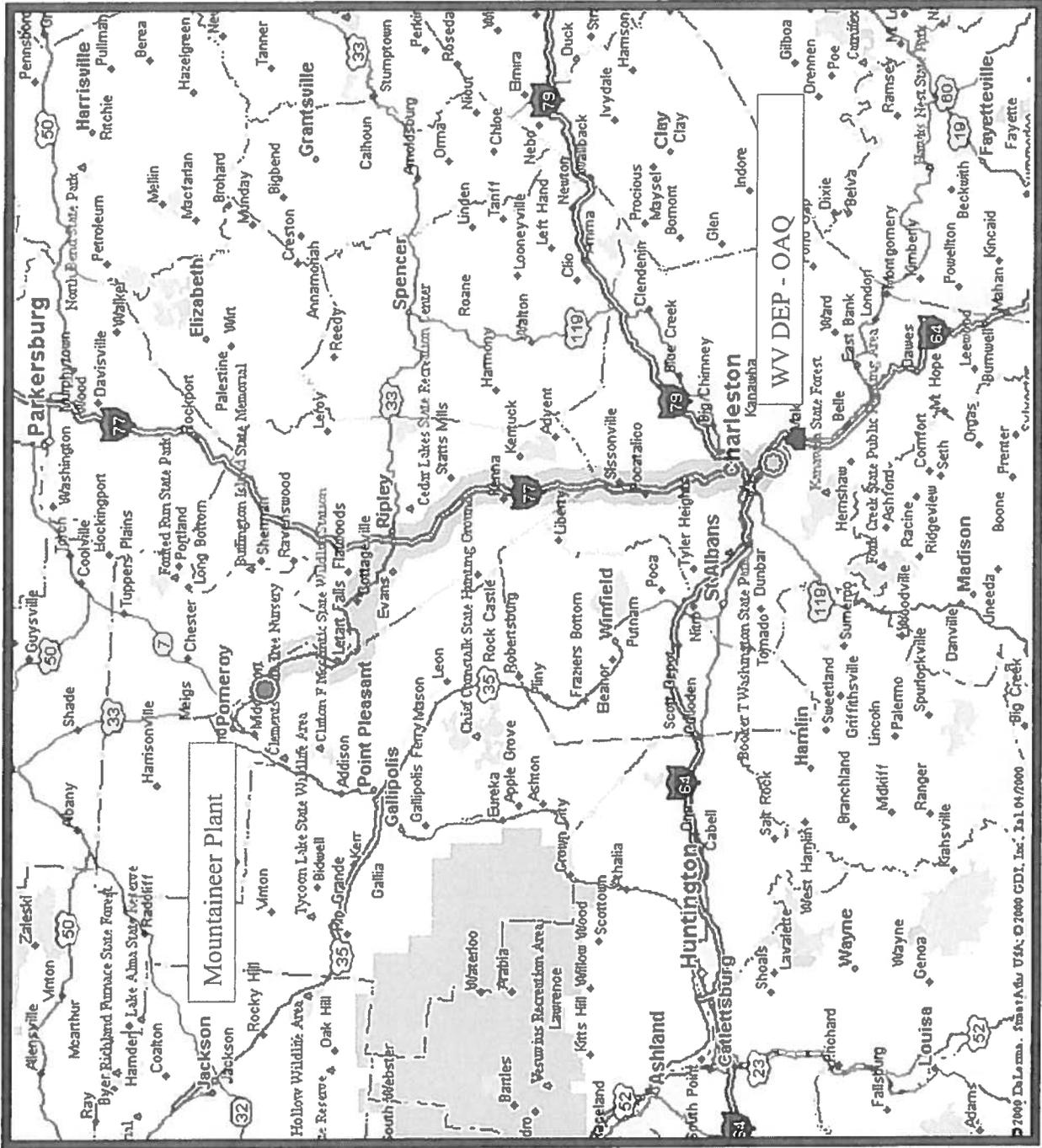
*Given under my hand and the
Great Seal of the State of
West Virginia on this day of
January 14, 2014*

Natalie E. Tennant

Secretary of State

Attachment B

Road Map



Attachment C

Installation and Startup Schedule

Attachment C
Installation and Start-up Schedule

This application is Appalachian Power Company's request for a voluntary heat input capacity limit on the auxiliary boilers (Emission Sources 2S and 3S). The annual heat input capacity limit will allow these boilers to meet the requirements of the Industrial Boiler MACT at 40 CFR 63 Subpart DDDDD in the limited use boiler subcategory. This limit on the heat input capacity is requested to begin on January 31, 2016.

Attachment D

Regulatory Discussion

Attachment D

Regulatory Discussion – 40 CFR 63 Subpart DDDDD

The IB Boiler MACT for Major Sources was published in the Federal Register on January 31, 2013. This subpart covers all affected boilers and process heaters at sources that are major for Hazardous Air Pollutants. Within the AEP system, the auxiliary boilers at the electric generating plants are regulated by this Subpart.

Compliance Date: - January 16, 2016 for existing sources.

For Limited Use Subcategory Boilers

- The final IB MACT rule includes a limited use boiler subcategory. A unit may be included in this subcategory as long as the unit **obtains a federally enforceable permit limit on the unit's operation to 10% capacity (by heat input or steam output) per year**. The permit will define the monitoring and reporting required for complying with the capacity limit.
- Units in this subcategory are not subject to numerical limits or the energy assessment. No stack testing is required for limited use boilers and process heaters.
- Units in this subcategory will have to comply with a work practice standard which will include **performing a boiler tune-up initially and then every 5-years**.
 - Tune-ups include inspecting the burner, cleaning or replacing any components as necessary, inspect flame pattern and adjust to manufacturer's specs, inspect system controlling air-to-fuel ratio to ensure it is correctly calibrated and functioning properly, optimize CO emissions consistent with manufacturer's specs, measure concentrations in effluent of CO and O₂ before and after adjustments are made.
 - Maintain on-site and submit if required an annual report containing information of the inspections, tune-up adjustments and testing.

Timeline for Compliance: Limited Use Subcategory Boilers

Air Permit Modification – (Due by January 31, 2016)

- Obtain a permit modification limiting the operation of the boilers to 10% capacity (based on heat input) or less.

Initial Performance Test – (Due by January 31, 2016)

- Boiler inspections and tuning

Compliance Status (60-days after completing performance testing and no later than March 31, 2016)

- Notification of Compliance Status due within 60-days of completing performance testing (63.9(h))

Continuing Compliance

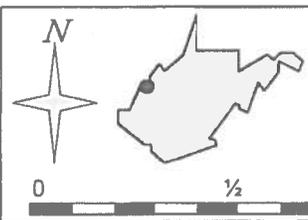
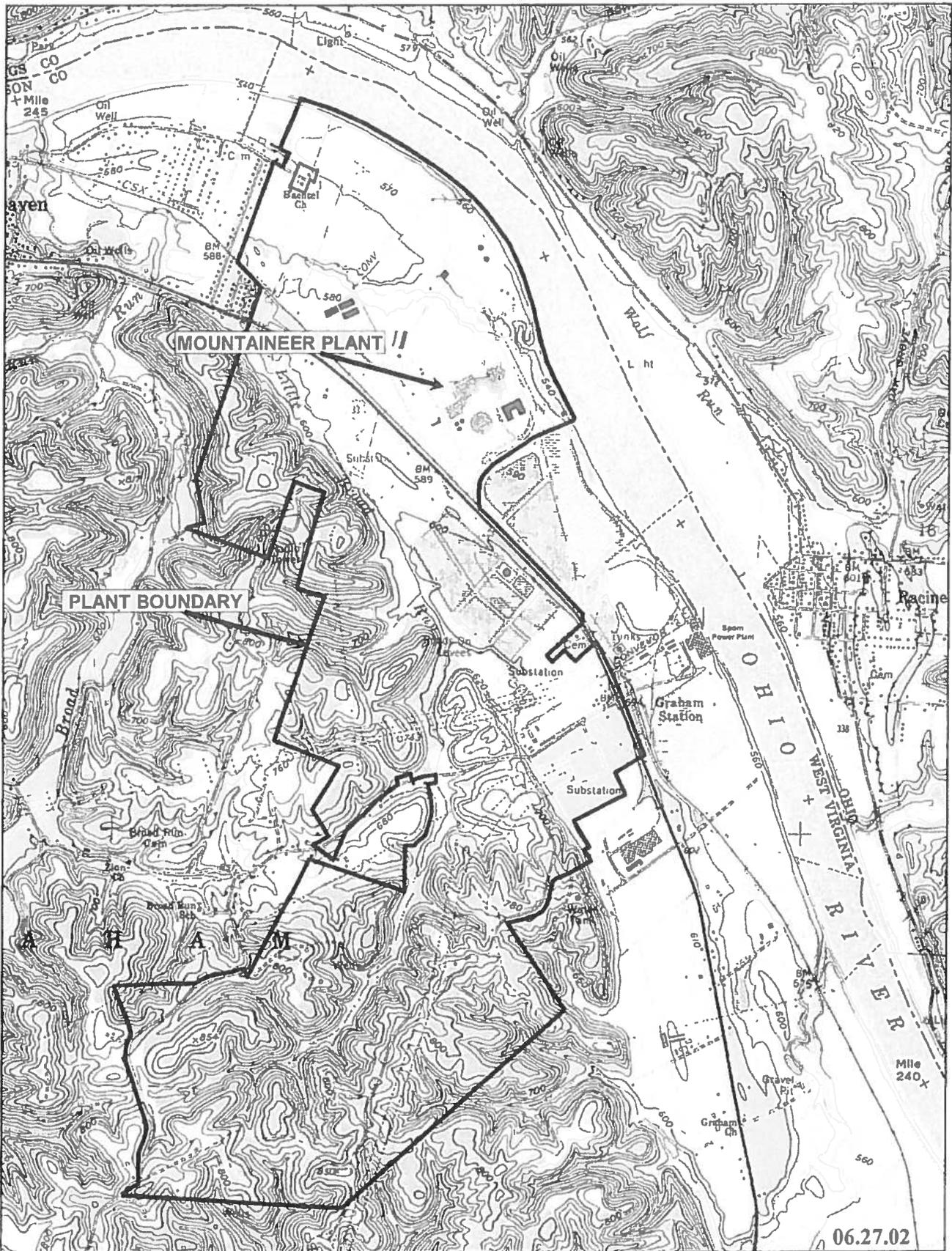
- Perform boiler inspections and tune-ups (within 5-years of prior inspection and tune-up). These must be completed within 61 months from prior inspection/tune-up.

Reporting

- Semiannual Deviation reporting
- Annual Boiler Inspection/Tune-up reporting

Attachment E

Site Plot Plan



New Haven, WVa-Ohio
 Quadrangle
 USGS Topographic Map

Appalachian Power Co.
Mountaineer Plant

Facility Boundary

Plant Latitude 38° 58' 46"
 Plant Longitude 81° 56' 04"

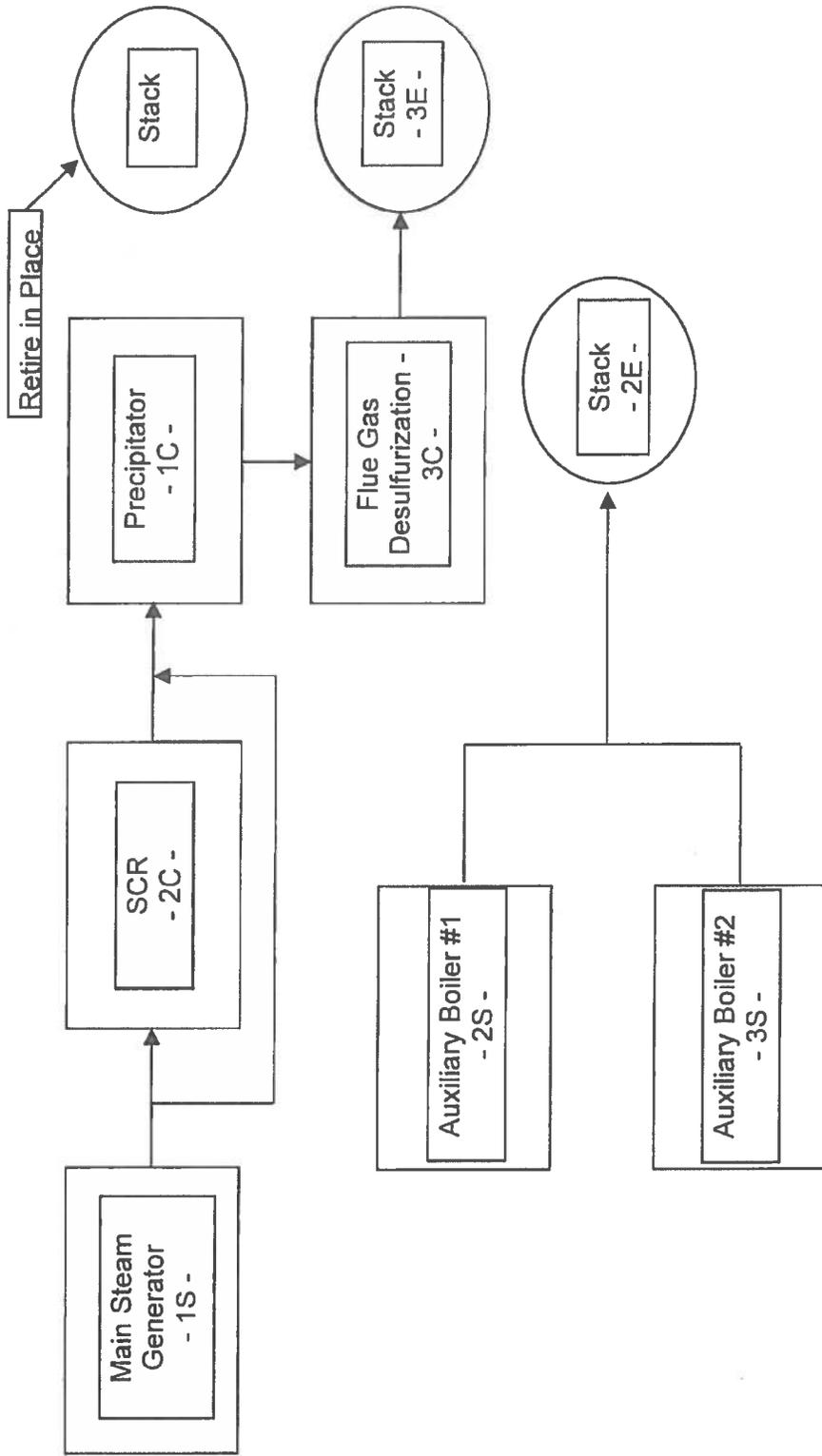


Attachment F

Detailed Process Flow Diagrams

Flow Diagrams

Steam Generator and Auxiliary Boilers



Attachment G

Process Descriptions

Attachment G
Process Descriptions

There are no changes to the process or process descriptions associated with this permit change for Auxiliary Boilers 1 and 2 (Source Numbers 2S and 3S).

Attachment H

MSDS

(Not Applicable)

Attachment I
Equipment List Form

Attachment I
Equipment List Form

There are no changes to the existing equipment list form associated with this permit change for Auxiliary Boilers 1 and 2 (Source Numbers 2S and 3S).

Attachment J

Emission Points Data Summary Sheet

Attachment J
Emission Points Data Summary Form

There are no changes to the existing emission points data summary form associated with this permit change for Auxiliary Boilers 1 and 2 (Source Numbers 2S and 3S). The emission point remains identified as Stack (2E).

Attachment K

Fugitive Emissions Data Summary Sheet

Attachment K
Fugitive Emission Data Summary Form

There are no changes to fugitive emissions or the fugitive emission data summary form associated with this permit change for Auxiliary Boilers 1 and 2 (Source Numbers 2S and 3S).

Attachment L

Emission Unit Data Sheets

EMISSIONS UNIT DATA SHEET GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): 2S

1. Name or type and model of proposed affected source:

Auxiliary Boiler #1 -
Babcock and Wilcox Model PFI 28-28

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

Water is the process material, this material produces steam which services the main boiler during startup and shutdown, providing space heat to the buildings and to heat the steam generator chemical cleaning solution during this maintenance operation.

4. Name(s) and maximum amount of proposed material(s) produced per hour:

The boiler has a nominal rating of 375,000 lb./hr. steam.

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

Chemical reactions that produce heat to turn the water to steam are the reactions supporting combustion of the oil used as fuel.

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

This unit is capable of burning varying qualities of oil as fuel, but typically uses #2 fuel oil. The maximum fuel feed rate is 135,500 gallons of oil per day.

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

Fuel oil
Percent Ash - Trace
Percent Sulfur - Average = 0.5%, Maximum = 1.0%
Heating Value - Approximately 139,000 BTU/gal.

(c) Theoretical combustion air requirement (ACF/unit of fuel):

236 acf/lb. oil @ 55 dry bulb °F and 14.7 psia.

(d) Percent excess air: 17%

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

Babcock and Wilcox Circular Oil Burners
Two over three on the front wall.

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

N/A

(g) Proposed maximum design heat input: 600 × 10⁶ BTU/hr.

7. Projected operating schedule:

Hours/Day	24	Days/Week	7	Weeks/Year	52
-----------	----	-----------	---	------------	----

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:			
@	627	°F and	14.7 psia
a. NO _x	99.7	lb/hr	grains/ACF
b. SO ₂	353.8	lb/hr	grains/ACF
c. CO	24.9	lb/hr	grains/ACF
d. PM ₁₀	5.0	lb/hr	grains/ACF
e. Hydrocarbons	N/A	lb/hr	grains/ACF
f. VOCs	1	lb/hr	grains/ACF
g. Pb	N/A	lb/hr	grains/ACF
h. Specify other(s)		lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

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.

MONITORING

In addition to the Monitoring Plan in Attachment O, collect monthly fuel data (gallons burned and heat content) using existing monitoring methods for gallons utilized and the fuel heat content as utilized in the annual emission inventory for fee purposes.

RECORDKEEPING

Maintain monthly records of gallons burned and fuel oil heat content collected in the monitoring portion of this section.

REPORTING

No reporting is required unless the annual heat input exceeds the 10% capacity level. This would be provided in the semi-annual deviation report and actions will be taken to initial compliance with the rule as an industrial boiler.

TESTING

No testing is required for this program.

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.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

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

N/A

**EMISSIONS UNIT DATA SHEET
GENERAL**

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): 3S

1. Name or type and model of proposed affected source:

Auxiliary Boiler #2 -
Babcock and Wilcox Model PFI 28-28

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

Water is the process material, this material produces steam which services the main boiler during startup and shutdown, providing space heat to the buildings and to heat the steam generator chemical cleaning solution during this maintenance operation.

4. Name(s) and maximum amount of proposed material(s) produced per hour:

The boiler has a nominal rating of 375,000 lb./hr. steam.

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

Chemical reactions that produce heat to turn the water to steam are the reactions supporting combustion of the oil used as fuel.

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

This unit is capable of burning varying qualities of oil as fuel, but typically uses #2 fuel oil. The maximum fuel feed rate is 135,500 gallons of oil per day.

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

Fuel oil
 Percent Ash - Trace
 Percent Sulfur - Average = 0.5%, Maximum = 1.0%
 Heating Value - Approximately 139,000 BTU/gal.

(c) Theoretical combustion air requirement (ACF/unit of fuel):

236 acf/lb. oil @ 55 dry bulb °F and 14.7 psia.

(d) Percent excess air: 17%

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

Babcock and Wilcox Circular Oil Burners
 Two over three on the front wall.

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

N/A

(g) Proposed maximum design heat input: 600 × 10⁶ BTU/hr.

7. Projected operating schedule:

Hours/Day	24	Days/Week	7	Weeks/Year	52
-----------	----	-----------	---	------------	----

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:				
@	627	°F and	14.7	psia
a. NO _x	99.7	lb/hr		grains/ACF
b. SO ₂	353.8	lb/hr		grains/ACF
c. CO	24.9	lb/hr		grains/ACF
d. PM ₁₀	5.0	lb/hr		grains/ACF
e. Hydrocarbons	N/A	lb/hr		grains/ACF
f. VOCs	1	lb/hr		grains/ACF
g. Pb	N/A	lb/hr		grains/ACF
h. Specify other(s)		lb/hr		grains/ACF
		lb/hr		grains/ACF
		lb/hr		grains/ACF
		lb/hr		grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

<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>MONITORING In addition to the Monitoring Plan in Attachment O, collect monthly fuel data (gallons burned and heat content) using existing monitoring methods for gallons utilized and the fuel heat content as utilized in the annual emission inventory for fee purposes.</p>	<p>RECORDKEEPING Maintain monthly records of gallons burned and fuel oil heat content collected in the monitoring portion of this section.</p>
<p>REPORTING No reporting is required unless the annual heat input exceeds the 10% capacity level. This would be provided in the semi-annual deviation report and actions will be taken to initial compliance with the rule as an industrial boiler.</p>	<p>TESTING No testing is required for this program.</p>
<p>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.</p> <p>RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.</p> <p>REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.</p> <p>TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty</p> <p>N/A</p>	

Attachment M

Air Pollution Control Device Sheets

(Not Applicable - Control Devices are
associated with these Boilers)

Attachment N

Supporting Emissions Calculations

598
 1200000
 10.00%

Auxiliary Boiler HI (mmbtu/hr) =
 Fuel/Oil Heat Content (BTU/gal) =
 Capacity Factor =

(Minimum Value)

Mountaineer Aux 1-Oil

Inputs:

Oil (gal): 4,365,400

Pollutant	Mountaineer Aux 1- Oil		Tons of Pollut ^t	
	EF lb/10 ³ -3gal	Controlled	Controlled	
SO ₂	71.00	154.97	154.97	
NO _x	20.00	43.65	43.65	
CO ₂	22,300.00	48,674.21	48,674.21	
Partic	2.00	4.37	4.37	
VOC	0.20	0.44	0.44	
PM ₁₀	1.00	2.18	2.18	
CO	5.00	10.91	10.91	
Lead	0.0000	0.00	0.00	
CH ₄	0.052	0.11	0.11	
N ₂ O	0.26	0.57	0.57	
NH ₃ (NAPAP)	0.80	1.75	1.75	
Condensibles	1.30	2.84	2.84	
PM _{2.5}	0.25	0.55	0.55	

Unit	Pollut ^t	Oil Emission Factor (EF)	Equiv. SCC EF (lb/10 ³ -3gal)	Tons of		lb/hr	Source
				Pollut ^t (uncontri.)	Pollut ^t (uncontri.)		
AUX1 - Oil	SO ₂	71.00 lb/10 ³ -3gal	71.00000	154.97	154.97	353.82	AP-42
	NO _x	20 lb/10 ³ -3gal	20.00000	43.65	43.65	99.67	AP-42
	CO ₂	22300 lb/10 ³ -3gal	22300.00000	48674.21	48674.21	111128.33	AP-42
	Partic	2 lb/10 ³ -3gal	2.00000	4.37	4.37	9.97	AP-42
	VOC	0.2 lb/10 ³ -3gal	0.20000	0.44	0.44	1.00	AP-42
	PM ₁₀	1 lb/10 ³ -3gal	1.00000	2.18	2.18	4.98	AP-42
	CO	5 lb/10 ³ -3gal	5.00000	10.91	10.91	24.92	AP-42
	Lead	9 lb/10 ³ -12bu	0.00000	0.00	0.00	0.00	AP-42
	CH ₄	0.052 lb/10 ³ -3gal	0.05	0.11	0.11	0.26	AP-42
	N ₂ O	0.26 lb/10 ³ -3gal	0.26	0.57	0.57	1.30	AP-42
	NH ₃ (NAPAP)	0.8 lb/10 ³ -3 gal	0.80	1.75	1.75	3.99	NAPAP
	Condensibles	1.3 lb/10 ³ -3 gal	1.30	2.84	2.84	6.48	AP-42
	PM _{2.5}	0.25 lb/10 ³ -3gal	0.25	0.55	0.55	1.25	AP-42

Mountaineer Aux 2-Oil

Inputs:

Oil (gal): 4,365,400

Pollutant	Mountaineer Aux 2- Oil		Tons of Pollut ^t	
	EF lb/10 ³ -3gal	Controlled	Controlled	
SO ₂	71.00	154.97	154.97	
NO _x	20.00	43.65	43.65	
CO ₂	22,300.00	48,674.21	48,674.21	
Partic	2.00	4.37	4.37	
VOC	0.20	0.44	0.44	
PM ₁₀	1.00	2.18	2.18	
CO	5.00	10.91	10.91	
Lead	0.0000	0.00	0.00	
CH ₄	0.052	0.11	0.11	
N ₂ O	0.26	0.57	0.57	
NH ₃ (NAPAP)	0.80	1.75	1.75	
Condensibles	1.30	2.84	2.84	
PM _{2.5}	0.25	0.55	0.55	

Unit	Pollut ^t	Oil Emission Factor (EF)	Equiv. SCC EF (lb/10 ³ -3gal)	Tons of		lb/hr	Source
				Pollut ^t (uncontri.)	Pollut ^t (uncontri.)		
AUX2 - Oil	SO ₂	71.00 lb/10 ³ -3gal	71.00000	154.97	154.97	353.82	AP-42
	NO _x	20 lb/10 ³ -3gal	20.00000	43.65	43.65	99.67	AP-42
	CO ₂	22300 lb/10 ³ -3gal	22300.00000	48674.21	48674.21	111128.33	AP-42
	Partic	2 lb/10 ³ -3gal	2.00000	4.37	4.37	9.97	AP-42
	VOC	0.2 lb/10 ³ -3gal	0.20000	0.44	0.44	1.00	AP-42
	PM ₁₀	1 lb/10 ³ -3gal	1.00000	2.18	2.18	4.98	AP-42
	CO	5 lb/10 ³ -3gal	5.00000	10.91	10.91	24.92	AP-42
	Lead	9 lb/10 ³ -12bu	0.00000	0.00	0.00	0.00	AP-42
	CH ₄	0.052 lb/10 ³ -3gal	0.05	0.11	0.11	0.26	AP-42
	N ₂ O	0.26 lb/10 ³ -3gal	0.26	0.57	0.57	1.30	AP-42
	NH ₃ (NAPAP)	0.8 lb/10 ³ -3 gal	0.80	1.75	1.75	3.99	NAPAP
	Condensibles	1.3 lb/10 ³ -3 gal	1.30	2.84	2.84	6.48	AP-42
	PM _{2.5}	0.25 lb/10 ³ -3gal	0.25	0.55	0.55	1.25	AP-42

SO₂ Emission Factor = 142 x S = 142 x 0.5 = 71 lb/1000 gal

Notes:

Assume 8760 for auxiliary boiler PTE, Calculations are for each boiler

Use TRI list of reported chemicals

Only use TRI list chemicals that are HAPS

TRI air constant means a emission factor constant was used

Lead is HAP, also included in CAP

Oil EF from TRI air constants library for oil - assumes no controls

Auxiliary Boiler HI (mmbtu/hr) = 598

TRI LIST	Emission Factor (lb/TBTU)	HAPS PTE (TPY)	Emission Factor Source	HAPS (TPY) (At 10% capacity)	HAPS (lb/hr)
Ammonia	Not a HAP				
Antimony	35	0.0916734	TRI air constant	0.00916734	0.02093
Arsenic	5.1	0.013358124	TRI air constant	0.001335812	0.0030498
Barium	Not a HAP				
Beryllium	0.15	0.000392886	TRI air constant	3.92886E-05	0.0000897
Cadmium	1.2	0.003143088	TRI air constant	0.000314309	0.0007176
Chromium	5.2	0.013620048	TRI air constant	0.001362005	0.0031096
Cobalt	32	0.08381568	TRI air constant	0.008381568	0.019136
Copper	Not a HAP				
HCl	2730	7.1505252	TRI air constant	0.71505252	1.63254
HF	110	0.2881164	TRI air constant	0.02881164	0.06578
H2SO4	Not a HAP				
Lead	9	0.02357316	AP-42	0.002357316	0.005382
Manganese	14	0.03666936	TRI air constant	0.003666936	0.008372
Mercury	0.48	0.001257235	TRI air constant	0.000125724	0.00028704
Nickel	710	1.8596604	TRI air constant	0.18596604	0.42458
Selenium	2.1	0.005500404	TRI air constant	0.00055004	0.0012558
Silver	Not a HAP				
Thallium	Not a HAP				
Vanadium	Not a HAP				
Zinc	Not a HAP				
1,1,1-Trichloroethane oil	1.1	0.002881164	TRI air constant	0.000288116	0.0006578
1,2,4-Trichlorobenzene		0		0	0
1,2-Dibromoethane	Not a HAP				
1,3-Dichlorobenzene	Not a HAP				
1,4-Dichlorobenzene		0		0	0
2,4-Dinitrotoluene		0		0	0
2,6 Dinitrotoulene	Not a HAP				
5-Methylchrysene	Not a HAP				
Acetaldehyde - oil	6.6	0.017286984	TRI air constant	0.001728698	0.0039468
Alpha-Naphthylamine	Not a HAP				
Anthracene	Not a HAP				
Benzene	1.1	0.002881164	TRI air constant	0.000288116	0.0006578
Benzo(a)anthracene	Not a HAP				
Benzo(a)pyrene	Not a HAP				
Benzo(G,H,I)perylene	Not a HAP				
Biphenyl		0		0	0
Bromomethane		0		0	0
Butyraldehyde	Not a HAP				
Carbon Disulfide		0		0	0

TRI LIST	Emission Factor (lb/TBTU)	HAPS PTE (TPY)	Emission Factor Source	HAPS (TPY) (At 10% capacity)	HAPS (lb/hr)
Chlorobenzene		0		0	0
Chloroethane		0		0	0
Chloroform		0		0	0
Chloromethane		0		0	0
Chrysene	Not a HAP				
Dibenzo(A,H)anthracene	Not a HAP				
Dibenzo(A,I)acridene	Not a HAP				
Dibenzofuran		0		0	0
Dibutylphthalate		0		0	0
Dichloromethane - oil	33	0.08643492	TRI air constant	0.008643492	0.019734
Diethyl Phthalate		0		0	0
Dimethylphthalate		0		0	0
Ethylbenzene	0.29	0.00075958	TRI air constant	7.5958E-05	0.00017342
Formaldehyde	18	0.04714632	TRI air constant	0.004714632	0.010764
Hexachlorobenzene		0		0	0
Methylmethacrylate		0		0	0
M-Xylene	1.2	0.003143088	TRI air constant	0.000314309	0.0007176
Naphthalene	0.83	0.002173969	TRI air constant	0.000217397	0.00049634
N-Hexane		0		0	0
O-Xylene		0		0	0
Phenanthrene	Not a HAP				
Phenol	10	0.0261924	TRI air constant	0.00261924	0.00598
Propionaldehyde		0		0	0
Styrene		0		0	0
Tetrachloroethylene		0		0	0
Toluene	12	0.03143088	TRI air constant	0.003143088	0.007176
Trichlorofluoromethane	Not a HAP				
Vinyl Acetate		0		0	0
Vinyl Chloride		0		0	0
Dioxin		0		0	0
PAC's		0		0	0
Total HAPS		9.791635854		0.979163585	2.2355333

598 = Boiler Max. Heat Input (mmBTU/hr)

GHG	Emission Factor		Emission Factor Source	TPY (with 10% HI limit)	lb/hr
EF (#2 fuel oil)	73.96	kg CO2/MMBtu	Table C-1 to Subpart C of Part 98	42707.73	97506.23
	163.05	lbs CO2/MMBtu			
EF (#2 fuel oil)	3.00E-03	kg CH4/MMBtu	Table C-2 to Subpart C of Part 98	1.73	3.96
	6.61E-03	lbs CH4/MMBtu			
EF (#2 fuel oil)	6.00E-04	kg N2O/mmBtu	Yable C-2 to Subpart C of Part 98	0.35	0.79
	1.32E-03	lbs N2O/mmBtu			
	1	kg =	2.204622622	lbs	

Attachment O

Monitoring, Recordkeeping, Reporting and Testing Plans

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

The monitoring, recordkeeping, reporting and testing associated with this request are included on the Emission Unit Forms (Attachment L) and no changes to the existing 45 CSR 2 and 45 CSR 10 Monitoring and Recordkeeping Plan (see enclosed) are associated with this permit change for Auxiliary Boilers 1 and 2 (Source Numbers 2S and 3S).

45 CSR 2 and 45 CSR 10 Monitoring and Recordkeeping Plan

Mountaineer Plant

Facility Information:

Facility Name: Mountaineer Plant

Facility Address: P.O. Box 419
State Route 62
New Haven, WV 25265

Facility Environmental Contact: R.D. Thompson

A. Facility Description:

Mountaineer Plant is a coal-fired electric generating facility with one main combustion unit (Unit 1) discharging through a single main stack (MT1). Mountaineer plant also has two auxiliary boilers (Aux. 1 and 2) that discharge through an independent auxiliary stack (CS012). Unit 1, Aux. Boiler 1 and Aux. Boiler 2 each have a design heat input greater than 10 mmBtu/hr making both 45 CSR 2A (Interpretive Rule for 45 CSR 2) and 45 CSR 10A (Interpretive Rule for 45 CSR 10) applicable to these sources. However, each of these boilers are regulated by subpart D of the New Source Performance Standards and have limited applicability under 45 CSR 10 and 45 CSR 10A.

I. 45 CSR 2 Monitoring Plan:

In accordance with Section 8.2.a of 45 CSR 2, following is the proposed plan for monitoring compliance with opacity limits found in Section 3 of that rule:

A. Main Stack (MT1)

1. Applicable Standard:

45 CSR 2, §3.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

2. Monitoring Method(s):

45 CSR 2, §8.2.a.1. Direct measurement with a certified continuous opacity monitoring system (COMS) shall be deemed to satisfy the requirements for a monitoring plan. Such COMS shall be installed, calibrated, operated and maintained as specified in 40 CFR

Part 60, Appendix B, Performance Specification 1 (PS1). COMS meeting the requirements of 40 CFR Part 75 (Acid Rain) will be deemed to have satisfied the requirements of PS1.

a. **Primary Monitoring Method:** While a Continuous Opacity Monitors (COMS) would not be required on a wet scrubbed fuel burning unit, Mountaineer has chosen to employ COMS on the fuel burning unit upstream of the wet scrubber and located in the plant ductwork. As such, the primary method of monitoring opacity at Mountaineer Plant will be Continuous Opacity Monitors (COMS). The COMS are installed, maintained and operated in compliance with requirements of 40 CFR Part 75.

b. **Other Credible Monitoring Method(s):** While Mountaineer Plant will use COMS as the primary method of monitoring opacity of the fuel burning unit, we are also reserving the right to use Method 9 readings or any other appropriate method that would produce credible data. These "other monitoring methods" will generally be used in the absence of COMS data or as other credible evidence used in conjunction with COMS data.

3. Recordkeeping:

a. **Operating Schedule and Quality/Quantity of Fuel Burned**

45 CSR 2A §7.1.a. *The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as specified in paragraphs 7.1.a.1 through 7.1.a.6, as applicable.*

The applicable paragraphs for Mountaineer Plant are the following:

§7.1.a.2: *For fuel burning unit(s) which burn only distillate oil, such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a monthly basis and a BTU analysis for each shipment.*

§7.1.a.4: *For fuel burning unit(s) which burn only coal, such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a daily basis and an ash and BTU analysis for each shipment.*

§7.1.a.6: *For fuel burning unit(s) which burn a combination of fuels, the owner or operator shall comply with the applicable Recordkeeping requirements of paragraph 7.1.a.1 through 7.1.a.5 for each fuel burned.*

The date and time of each startup and shutdown of Unit 1 will be maintained. The quantity of coal burned on a daily basis as well as the ash and Btu content will also be maintained. From a fuel oil perspective, the quantity of fuel oil burned on a monthly basis, as well as the Btu content will be maintained. The fuel oil analysis will generally be one that is provided by the supplier for a given shipment but in some cases, we may

use independent sampling and analyses. The quantity of fuel oil burned on a monthly basis may be maintained on a facility wide basis.

b. Record Maintenance

45 CSR 2A §7.1.b. *Records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports.*

Records of all required monitoring data and support information will be maintained on-site for at least five (5) years. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports.

4. Exception Reporting:

a. Particulate Mass Emissions:

45 CSR 2A, §7.2.a. *With respect to excursions associated with measured emissions under Section 4 of 45CSR2, compliance with the reporting and testing requirements under the Appendix to 45CSR2 shall fulfill the requirement for a periodic exception report under subdivision 8.3.b. or 45CSR2.*

Mountaineer Plant will comply with the reporting and testing requirements specified under the Appendix to 45 CSR 2.

b. Opacity:

45 CSR 2A, §7.2.b. COMS – *In accordance with the provisions of this subdivision, each owner or operator employing COMS as the method of monitoring compliance with opacity limits shall submit a “COMS Summary Report” and/or an “Excursion and COMS Monitoring System Performance Report” to the Director on a quarterly basis; the Director may, on a case-by-case basis, require more frequent reporting if the Director deems it necessary to accurately assess the compliance status of the fuel burning unit(s). All reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter. The COMS Summary Report shall contain the information and be in the format shown in Appendix B unless otherwise specified by the Director.*

45 CSR 2A, §7.2.b.1. *If the total duration of excursions for the reporting period is less than one percent (1%) of the total operating time for the reporting period and monitoring system downtime for the reporting period is less than five percent (5%) of the total operating time for the reporting period, the COMS Summary Report shall be submitted to the Director; the Excursion and COMS Monitoring System Performance report shall be maintained on-site and shall be submitted to the Director upon request.*

45 CSR 2A, §7.2.b.2. *If the total duration of excursions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period or the total monitoring system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the COMS Summary Report and the Excursion and COMS Monitoring System Performance Report shall both be submitted to the Director.*

45 CSR 2A, §7.2.b.3. *The Excursion and COMS Monitoring System Performance Report shall be in a format approved by the Director and shall include, but not be limited to, the following information:*

45 CSR 2A, §7.2.b.3.A. *The magnitude of each excursion, and the date and time, including starting and ending times, of each excursion.*

45 CSR 2A, §7.2.b.3.B. *Specific identification of each excursion that occurs during start-ups, shutdowns, and malfunctions of the facility.*

45 CSR 2A, §7.2.b.3.C. *The nature and cause of any excursion (if known), and the corrective action taken and preventative measures adopted (if any).*

45 CSR 2A, §7.2.b.3.D. *The date and time identifying each period during which quality-controlled monitoring data was unavailable, except for zero and span checks, and the reason for data unavailability and the nature of the repairs or adjustments to the monitoring system.*

45 CSR 2A, §7.2.b.3.E. *When no excursions have occurred or there were no periods of quality-controlled data unavailability, and no monitoring systems were inoperative, repaired, or adjusted, such information shall be stated in the report.*

Attached, as Appendices A and B are sample copies of the COMS “Summary Report” and “Excess opacity and COM downtime report” that we plan on using to fulfill the opacity reporting requirements. The COMS “Summary Report” will satisfy the conditions under 45 CSR 2A, §7.2.b for the “COMS Summary Report” and will be submitted to the Director according to its requirements. The “Excess opacity and COM downtime report” satisfies the conditions under 45 CSR 2A, §7.2.b.3. for the “Excursion and COMS Monitoring System Performance Report”. The “Excess opacity and COM downtime report” shall be submitted to the Director following the conditions outlined in 45 CSR 2A, §7.2.b.1. and §7.2.b.2.

To the extent that an excursion is due to a malfunction, the reporting requirements in section 9 of 45CSR2 shall be followed – 45 CSR 2A, §7.2.d.

B. Aux. Stack (CS012)

1. Applicable Standard:

45 CSR 2, §3.1. *No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.*

2. Monitoring Method:

45 CSR 2, §8.2.a.1. *Direct measurement with a certified continuous opacity monitoring system (COMS) shall be deemed to satisfy the requirements for a monitoring plan. Such COMS shall be installed, calibrated, operated and maintained as specified in 40 CFR Part 60, Appendix B, Performance Specification 1 (PSI). COMS meeting the requirements of 40 CFR Part 75 (Acid Rain) will be deemed to have satisfied the requirements of PSI.*

45 CSR 2, §8.4.a. *The owner or operator of a fuel burning unit(s) may petition for alternatives to testing, monitoring, and reporting requirements prescribed pursuant to this rule for conditions, including, but not limited to, the following:*

45 CSR 2, §8.4.a.1. *Infrequent use of a fuel burning unit(s)*

Pursuant to 45 CSR 2, Section 8.4.a and 8.4.a.1, Mountaineer Plant previously petitioned the Office of Air Quality (OAQ) Chief for alternative testing, monitoring, and reporting requirements for the auxiliary boiler and associated stack. Based on limited operating hours, the requirement for COMS installation per Section 6.2.a of interpretive rule 45 CSR 2A was determined to be overly burdensome and sufficient reason for the granting of alternative monitoring methods. The alternative monitoring method based on USEPA Method 9 visible emission readings is described below.

▪ **Primary Monitoring Method:** As an alternative to COMS monitoring, a Method 9 reading shall be conducted one time per month provided the following conditions are met: 1) The auxiliary boiler(s) has operated at normal, stable load conditions for at least 24 consecutive hours and 2) weather/lighting conditions are conducive to taking proper Method 9 readings. With the Mountaineer auxiliary boilers being sans particulate emissions controls, operating parameters of control equipment are nonexistent and unable to be monitored.

3. Recordkeeping:

a. **Operating Schedule and Quality/Quantity of Fuel Burned**

45 CSR 2A §7.1.a. *The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as specified in paragraphs 7.1.a.1 through 7.1.a.6, as applicable.*

The applicable paragraph for the Mountaineer Plant auxiliary boilers follows:

§7.1.a.2: *For fuel burning unit(s) which burn only distillate oil, such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a monthly basis and a BTU analysis for each shipment.*

As such, the date and time of each startup and shutdown of the auxiliary boilers will be maintained. The quantity of fuel oil burned on a monthly basis, as well as the Btu content will be maintained. The fuel oil analysis will generally be one that is provided by the supplier for a given shipment but in some cases, we may use independent sampling and analyses. The quantity of fuel oil burned on a monthly basis may be maintained on a facility wide basis.

b. Record Maintenance

45 CSR 2A §7.1.b. *Records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports.*

Records of all required monitoring data and support information will be maintained on-site for at least five (5) years. In the case of the auxiliary boilers, strip chart recordings, etc. are generally not available.

4. Exception Reporting:

Pursuant to 45 CSR 2, Section 8.4.a and 8.4.a.1, Mountaineer Plant previously petitioned the Office of Air Quality (OAQ) Chief for alternative testing, monitoring, and reporting requirements for the auxiliary boiler and associated stack.

a. Particulate Mass Emissions – As an alternative to the testing and exception reporting requirements for particulate mass emissions from the auxiliary boilers, the following was previously proposed and approved. Based on an average heat content of approximately 138,506 Btu/gallon (calendar year 2000 data) and an AP-42 based particulate mass emissions emission factor of 2 lbs/thousand gallons, the calculated particulate mass emissions of the auxiliary boiler are 0.01 lb/mm Btu. As such, the fuel analysis records maintained under the fuel quality analysis and recordkeeping section of this plan provide sufficient evidence of compliance with the particulate mass emission limit. For the purpose of meeting exception reporting requirements, any fuel oil analysis indicating a heat content of less than 25,000 Btu per gallon will be reported to the OAQ to fulfill the requirement for a periodic exception report under subdivision 8.3.b. or 45 CSR 2 – 45 CSR 2A, §7.2.a. A heat content of 25,000 Btu/gal and a particulate emissions factor of 2 lbs/thousand gallons would result in a calculated particulate mass emissions of approximately 90% of the applicable 45 CSR 2 standard.

b. Opacity – As an alternative to the exception reporting requirements for opacity emissions from the auxiliary boiler, we are proposing the following. We will maintain a

copy of each properly conducted (correct weather/lighting conditions, etc.) Method 9 evaluation performed. Any properly conducted Method 9 test that indicates an exceedance shall be submitted to the OAQ on a quarterly basis (within 30 days of the end of the quarter) along with an accompanying description of the excursion cause, any corrective action taken, and the beginning and ending times for the excursion.

To the extent that an excursion is due to a malfunction, the reporting requirements in section 9 of 45CSR2 shall be followed – 45 CSR 2A, §7.2.d.

If no exceptions have occurred during the quarter, then a report will be submitted to the OAQ stating so. This will include periods in which no method 9 tests were conducted (e.g. unit out of service) or when no fuel oil was received.

II. 45 CSR 10 Monitoring Plan:

A. Main Boiler (MT1)

The Mountaineer main boiler is regulated by Part 60 Subpart D New Source Performance Standards and does not have a SIP limit in section 3 of 45 CSR 10. Accordingly, a monitoring plan demonstrating compliance with weight emission standards in section 3 is not required for the main boiler

B. Aux. Stack (CS012)

1. Applicable Standard:

45 CSR 10, §3.3.f. *For type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.*

45 CSR 10, §3.8. *Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on continuous twenty-four (24) hour averaging time...A continuous twenty-four (24) hour period is defined as one (1) calendar day.*

2. Monitoring, Recordkeeping, Exception Reporting Requirements:

45 CSR 10, §10.3. *The owner or operator of a fuel burning unit(s) which combusts natural gas, wood or distillate oil, alone or in combination, shall be exempt from the requirements of section 8.*

As such, Mountaineer Plant auxiliary boilers 1 & 2 (CS012) are exempt from Testing, Monitoring, Recordkeeping, and Reporting requirements found in 45 CSR 10, Section 8 because the fuel burning sources combust only distillate oil. 45 CSR 10, Section 8 also contains the requirement for the development of a monitoring plan. The simple nature of burning distillate oil results in an SO₂ emission rate well below the standard.

While fuel sampling and analysis may continue to be performed at this facility, it is done so at the discretion of the owner/operator and is not required by this monitoring plan for the purposes of indicating compliance with SO₂ standards.

Revisions of Monitoring Plan:

Mountaineer Plant reserves the right to periodically revise the conditions of this monitoring plan. Any revised plan will become effective only after approval by the OAQ.

Implementation of Monitoring Plan:

This revised plan was implemented in concurrence with the installation and operation of the new stack for Unit 1 at Mountaineer Plant.

Attachment P

Public Notice

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Appalachian Power Company has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class I Administrative Update of their auxiliary boilers located on State Route 62 near New Haven, West Virginia in Mason County, West Virginia.

The applicant estimates the decreased annual potential to discharge regulated pollutants. The applicant is requesting a 10% annual capacity limitation based on design heat input.

The applicant requests the applicability of the limitation begin January 31, 2016. 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 1227, during normal business hours.

Dated this the _____ day of March, 2015.

By: Appalachian Power Company, Mountaineer Plant
Debra L. Osborne
Plant Manager, Mountaineer Plant
P.O. Box 419
New Haven, WV 25265

Attachment S

Title V Permit Revision Information

Regulation 13 Permit R13-0075G)

Limitations and Standards

- 4.1.21 The permittee shall limit the annual capacity of each, Auxiliary Boiler #1 (ID# 2S) and Auxiliary Boiler #2 (ID# 3S), to no more than 10 percent by limiting the annual heat input of the boiler to 525,600 MMBtu per year. You must comply with 40 C.F.R. 63 Subpart DDDDD no later than January 31, 2016, except as provided in 40 C.F.R. §63.6(i). [40 C.F.R. §63.7495(b); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.
- 4.1.22 Compliance Date for 40 C.F.R. 63 Subpart DDDDD. If you have an existing boiler or process heater, you must comply with 40 C.F.R. 63 Subpart DDDDD no later than January 31, 2016, except as provided in 40 C.F.R. §63.6(i). [40 C.F.R. §63.7495(b); 45CSR34] (Aux 1 and Aux2)
- 4.1.23 Initial and Periodic Tune-ups under 40 C.F.R. 63 Subpart DDDDD. If your boiler meets the definition of limited-use boiler or process heater in 40 C.F.R. §63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of 40 C.F.R. §63.7540 (paragraphs (i) through (vi) of this condition) to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (i) of this condition until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.
- (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
 - (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown).
 - (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
 - (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
 - (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (vi)(A) and (B) of this condition.
- (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - (B) A description of any corrective actions taken as a part of the tune-up.
- If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.
 - Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up.
 - You must complete an initial tune-up by following the procedures described in paragraphs (i) through (vi) of this condition no later than the compliance date specified in 40 C.F.R. §63.7495(b) (condition 4.1.13.), except as specified in paragraph (j) of 40 C.F.R. §63.7510. [40 C.F.R. §§ 63.7500(c), 63.7540(a)(10), 63.7540(a)(12), 63.7540(a)(13), 63.7505(a), 63.7510(e), 63.7515(d); 45CSR34] (Aux 1 and Aux2)

[Modify the following requirement]

Monitoring

- 4.2.2 To determine compliance with requirements 4.1.3, 4.1.4, and 4.1.5, the permittee shall monitor and maintain records of the maximum fuel feed rate to Auxiliary Boiler #1 (ID# 2S) and Auxiliary Boiler #2 (ID# 3S) and sulfur content of the fuel oil. In addition, to determine compliance with requirement 4.1.21, the permittee shall maintain records of the monthly fuel feed rate and fuel heat content. These records shall be maintained on site for a period of not less than five (5) years and certified records shall be made available to the Director or a duly authorized representative of the Director upon request.

Testing

[Reserved]

Recordkeeping Requirements

- 4.4.4 The permittee shall maintain records of the monthly fuel feed rate and fuel heat content using existing fuel feed rate measurement techniques showing compliance with requirement 4.1.21. These records shall be maintained on site for a period of not less than five (5) years and certified records shall be made available to the Director or a duly authorized representative of the Director upon request.
[40 C.F.R. §63.7555(a); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.
- 4.4.5. You must keep records according to paragraphs (1) and (2) of this condition.
- (1) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).
- (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).
[40 C.F.R. §63.7555(a); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.
- 4.4.6. You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.
[40 C.F.R. §63.7555(i); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.
- 4.4.7. You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.
[40 C.F.R. §63.7555(j); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.
- 4.4.8. **Format and Retention of Records for 40 C.F.R. 63 Subparts DDDDD**
- (a) Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).
- (b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.
[40 C.F.R. §§63.7560(a), (b), and (c); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.

4.4.9. For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.
[40 C.F.R. §63.7525(k); 45CSR34] (Aux 1 and Aux 2) This requirement is subject to the compliance date in condition 4.1.21.

Regarding the Title V Permit condition language:

Please note that the Title V Permit will be requested to be revised to incorporate the requirements of the MATS Rule for the main boiler (in accordance with condition 4.1.28 of R30-05300009-2014) and we request that these permit conditions applicable to the auxiliary boilers be included into the Title V permit at that time.

Attachment T
Application Fee