

Fact Sheet



*For Final Renewal Permitting Action Under 45CSR30 and
Title V of the Clean Air Act*

Permit Number: **R30-05300009-2009**
Application Received: **04/17/2008**
Plant Identification Number: **05300009**
Permittee: **Appalachian Power Company**
Facility Name: **Mountaineer Plant**
Mailing Address: **1 Riverside Plaza, Columbus, OH 43215**

Physical Location: New Haven, Mason County, West Virginia
UTM Coordinates: 419.04 km • 4314.70 km • Zone 17

Directions: From Charleston take Interstate 77 North to Exit 138. Travel west on US Route 33 approximately 24 miles to New Haven. Facility is located on the Right one mile east of New Haven in Mason County.

Facility Description

The Mountaineer Plant is a fossil fuel fired electric generation facility and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of one (1) coal-fired steam generator with a rated design capacity of 11,960 mm Btu/hr, two (2) oil-fired auxiliary boilers with a rated design capacity of 598 mm Btu/hr each, various supporting operations such as coal handling and ash handling, and various tanks with insignificant emissions. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) weeks per year.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2007 Actual Emissions
Carbon Monoxide (CO)	2116	743.8
Nitrogen Oxides (NO _x)	47042	8065.2
Particulate Matter (PM ₁₀)	2165	188.7
Total Particulate Matter (TSP)	5352	266.4
Sulfur Dioxide (SO ₂)	82459	32654.5
Volatile Organic Compounds (VOC)	234	89.0

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2007 Actual Emissions
Arsenic	1.95	0.08
Beryllium	0.13	0.005
Chromium	1.03	0.26
Cobalt	0.55	0.04
Manganese	2.23	0.16
Mercury	0.35	0.12
Nickel	1.58	0.18
Selenium	5.02	4.35
Hydrochloric Acid	4562	2450
Hydrofluoric Acid	570	175

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 82,459 TPY of SO₂, 47,042 TPY NO_x, 2165 tons per year PM₁₀, 2116 tons per year CO, 234 tons per year VOC, more than 10 tons per year of a single hazardous air pollutant (HAP), and more than 25 tons per year of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Mountaineer Plant is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30. This facility is also subject to 40 CFR 60 (NSPS) requirements as well as Title IV (Acid Rain) requirements and therefore is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR1	NO _x Budget Trading Program as A Means of Control and Reduction of Nitrogen Oxides
	45CSR2	Control of particulate matter emissions from indirect heat exchangers.
	45CSR6	Open burning prohibited.
	45CSR10	Control of sulfur dioxide emissions from indirect heat exchangers.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary sources
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
	45CSR26	NO _x Budget Trading Program as A Means of Control and Reduction of Nitrogen Oxides from Electric Generating Units
	45CSR30	Operating permit requirement.
	45CSR33	Acid Rain Provisions and Permits
	45CSR38	Determination of Compliance With Air Quality Management Rules
	40 CFR 60, Subpart D	Standards of performance for Fossil Fuel Fired Steam Generators
	40 CFR 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants
	40 CFR 60, Subpart Y	Standards of Performance for Coal Preparation Plants
	40 CFR 61	Asbestos inspection and removal
	40 CFR 64	Compliance Assurance Monitoring
	40 CFR 72	Permits Regulation
	40 CFR 73	Sulfur Dioxide Allowance System Permits Regulation
	40 CFR 74	Sulfur Dioxide Opt-ins
	40 CFR 75	Continuous Emissions Monitoring
	40 CFR 76	Nitrogen Oxides Reduction Program
	40 CFR 77	Excess Emissions
	40 CFR78	Appeals Procedure for Acid Rain Program
	40 CFR 60.13(i)(2)	Letter of approval to AEP dated June 9, 1999 for Alternative Monitoring Request
	40 CFR 82, Subpart F	Ozone depleting substances
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
State Only:	45CSR4	No objectionable odors.
	45CSR37	Mercury emissions reduction
	45CSR 39	Control of annual Nitrogen Oxide emissions

45CSR 40 Control of ozone season Nitrogen Oxide Emissions

45CSR 41 Control of annual Sulfur Dioxide emissions
 WVDAQ Letter dated September 3, 2002 addressed to Mr. Greg Wooten and signed by Jesse D. Adkins regarding the thermal decomposition of boiler cleaning solutions.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-0075F	4/24/2006	PD04-063 issued 08/05/2004 For FGD Project
NOx Budget Permit –Unit 1	4/7/2008	
NOx Budget Permit - Auxiliary Boilers 1 & 2	4/7/2008	
Acid Rain Permit- R 33-6264-2007-2	12/18/2007	
Compliance Order # CO-R37-C-2008-4	4/7/2008	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B, which may be downloaded from DAQ's website.

Determinations and Justifications:

The following are changes/additions to the initial Title V permit.

1. 40 C.F.R. Part 63 Subpart Y.

This Subpart is applicable per 60.250(b) to the Conveyor M5 (Emission Unit ID # 15S) because it was constructed in 2007 (after October 24, 1974). Requirements of this Subpart are included in **Sections 5.1.2**. Opacity monitoring **Requirement 5.2.1** was added in this permit to demonstrate compliance with opacity limit in section 5.1.2.

A performance test per 40 CFR 60.254(a), (b) (2) was performed in April 10, 12, 15 and 24 of 2007. This testing was completed and the report submitted in 2007. Since there are no additional performance test requirements in Part 60, no testing requirement was added in this permit.

For emission points limited to a specific opacity, testing was performed using Method 9. These requirements are included in 40 CFR 60.252(c). The testing consisted of opacity observations of the conveyor and transfer building. The observation showed opacity reading of 0. The testing confirms that the operation of the Coal Conveyor M5 is in compliance with the NSPS Subpart Y requirements.

2. 40 C.F.R. Part 60 Subpart OOO.

This Subpart is applicable to Limestone Processing System (all the equipment is listed in the Emission Units Table 1.1.) per 60.670(a)(1) & (e) because it was constructed in 2007 (after August 31 1983). Limestone System equipment includes the feeders, conveyors, silos and ball mills between the storage pile and the Flue Gas Desulfurization system. Requirements of this Subpart are included in Sections 6.1.1 and 6.4.3 of this permit.

The notification required by 60.676(i) of the date of the initial startup (March 6, 2007) was provided to the Director, WV DEP on March 8, 2007.

The initial performance test report required by 60.676(i) was submitted to the Director, WV DEP on June 29, 2007. Notification of the test and submittal of the protocol was made in March of 2009.

3. Dry Sorbent Injection for SO₃ Mitigation

The installation and operation of a Selective Catalytic Reduction (SCR) system, in conjunction with a wet FGD system on a boiler combusting high sulfur coal, leads to increased concentrations of SO₃ above that amount generated by coal combustion. Subsequently, the SO₃ reacts with moisture in the stack plume to support the secondary formation of H₂SO₄. If not minimized, the increase in SO₃ and subsequent increase in the formation of H₂SO₄ can impact the visible appearance of the stack discharge of the plume, including downwind of the stack.

The Mitchell Plant SCR installation utilizes a low conversion catalyst that helps minimize the conversion of SO₂ to SO₃ by the SCR system. Nevertheless, a supplemental SO₃ mitigation system is needed to help reduce SO₃ concentrations. Based on AEP's evaluation of various SO₃ mitigation systems at other AEP generating facilities, it was determined by AEP that the primary SO₃ mitigation system that would be constructed at Mitchell plant would be a dry sorbent injection system. Primarily, the dry sorbent of choice is Trona. Nevertheless, hydrated lime will be used as the dry sorbent as a backup to the Trona injection. If hydrated lime is used, the dry sorbent injection system will need to be supplemented with the injection of liquid magnesium hydroxide into the boiler.

Review of technical information shows that dry sorbent injection is beneficial to reduce blue plume formation and sulfuric acid release to the atmosphere. The permittee currently operates a dry sorbent (i.e., Trona) injection system as described above. Thus, there is permitting value gained by creating a permit condition to require operation of the dry sorbent injection system. Therefore the renewal Title V permit

contains a new condition requiring the permittee to operate the dry sorbent injection system. The new condition is not imposing any further limitation or standard beyond what the permittee is already practicing. The new condition is making a requirement of what the permittee has already proposed and volunteered to do in order to address the formation of SO₃. The authority to make dry sorbent injection a permit requirement is taken from 45CSR§30-12.7., which states: *The Secretary may incorporate any provision into a permit which has been proposed by or agreed to by a permit applicant and which does not conflict with any applicable requirement. All such provisions shall be enforceable after issuance of a final permit.* Dry sorbent injection has been proposed by the permittee. Furthermore, the dry sorbent injection system does not conflict with any applicable requirement. Refer to permit condition 4.1.14.

4.0 45CSR37 – Mercury Budget Trading Program to Reduce Mercury Emissions Compliance Order # CO-R37-C-2008-4

In response to the federal Clean Air Mercury Rule (CAMR), West Virginia enacted 45CSR37, which became effective on May 1, 2006 (after the current Title V was issued). The Title V permit was reopened (permit action RE01) to insert the CAMR (and CAIR) requirements, and the revised permit was issued on October 30, 2007.

On February 8, 2008, the federal CAMR rule was vacated, and on March 24, 2008, U.S. EPA appealed the decision. The federal CAMR rule is still subject to pending litigation and 45CSR37, although not vacated by the court, is intrinsically tied to the provisions of the federal CAMR program; therefore, the Compliance Order CO-R37-C-2008-4 holds certain permitting requirements in abeyance pending resolution of ongoing CAMR litigation or until other final action is taken. Details concerning 45CSR37 and the CAMR permit condition are set forth in the Director's April 7, 2008 cover letter to Mr. John M. McManus with the compliance order, which is included with the permit as Appendix F.

An explanatory note has been placed at the end of the CAMR permit condition indicating that certain requirements are held in abeyance. With the exception of the first sentence, the explanatory language is identical to that written in the draft Title V renewal permit for the Mitchell Plant (DAQ ID# 051-00005), which was requested by the permittee in their pre-draft comments concerning the Mitchell facility's Title V renewal.

5.0 40 C.F.R. Part 64 – Compliance Assurance Monitoring (CAM)

The permittee submitted a CAM plan in the renewal application for Unit 1 to assure compliance with the particular matter standard from 45CSR§2-4.1.a. Unit 1 is pollutant-specific emission units (PSEU) for the purposes of CAM. The PM emissions of Unit 1 are controlled by an electrostatic precipitator (ESP). These control devices have 100% capture efficiency, and provide 99.85% design control efficiency for particulate. Furthermore, the potential pre-control emissions of PM from PSEU is greater than the major source threshold for PM. Thus, the PSEU meet all three applicability criteria given under 40 C.F.R. §§ 64.2(a)(1)-(3).

The CAM plan submitted in the application suggested an opacity indicator range of zero to 15%. During the development of this renewal, the permittee worked out a testing plan for their Kammer Plant (ID# 051-00006) in order to establish an opacity range that demonstrates compliance with the PM limit. According to §64.4(e), this testing must be complete "prior to use of the monitoring." However, there is a deadline to implement the CAM monitoring. Testing *and* implementation of the monitoring (which includes the test result opacity range), must be complete within 180 days of issuance of the permit (§64.4(e)). The Mountaineer facility will perform testing to verify that 0-10% opacity will demonstrate compliance with the particulate matter mass emission limit. The CAM-related testing and CAM plan implementation will be conducted according to a schedule set forth in permit condition 4.2.11. Table 1 below summarizes the CAM plan.

Table 1 – CAM Plan for Steam Generators *Unit 1*

Elements of the CAM Plan	Indicator No. 1 of 1
I. GENERAL CRITERIA	Opacity
Monitoring Approach	Opacity is continuously measured and recorded by a certified opacity monitoring system (4.2.4).
Indicator Range	The indicator range is zero to 10% opacity, and will be verified by testing (4.2.11.). Monitoring shall be implemented within 180 days of issuance of this renewal permit (4.2.11.(c)). Continuously measured opacity values are reduced to six-minute block averages (4.2.10.(a)). These 6-minute averages are averaged into 3-hour block average opacity values (4.2.10.(c)). An excursion is defined as two consecutive 3-hour block averages greater than 10% (4.2.10.(c)). Excursions trigger an inspection, evaluation, and corrective action (4.2.13.). Excursions are also included in the recordkeeping (4.4.4.), and reporting requirements (4.5.7.).
QIP threshold	If five (5) percent or greater of the 3-hour average COMS opacity values indicate excursions during a calendar quarter, the permittee must develop a QIP (4.3.2).
II. PERFORMANCE CRITERIA	
Specifications for obtaining representative data	The location of the opacity monitors is in accordance with 40 C.F.R. 60, Appendix B, Performance Specification 1 (PS-1). The COMS was installed in accordance with PS-1. Therefore, the employed COMS must be used to comply with CAM (see §64.3(d)(1)), and §§64.3(a) and (b) are automatically satisfied when COMS is used (see §64.3(d)(2)(ii)). Refer to conditions 4.2.3. and 4.2.4.
Verification of Operational Status	The COMS is not <i>new or modified monitoring equipment</i> ; therefore, verification of operational status pursuant to §64.3(b)(2) is not applicable.
QA/QC Practices and Criteria	The COMS was installed and evaluated in accordance with PS-1. Zero and span drift are checked daily, and filter audits are performed in accordance with PS-1. §64.3(b)(3) is automatically satisfied when COMS is used, according to §64.3(d)(2)(ii). Refer to condition 4.2.3. and 4.2.4.
Monitoring frequency	The monitoring frequency is continuous (4.2.3., 4.2.16.). §64.3(b)(4) is automatically satisfied when COMS is used, according to §64.3(d)(2)(ii).
Data Collection Procedure	The data are collected by a computerized data acquisition and handling system (DAHS). This system collects and retains all relevant opacity data (4.2.3., 4.4.4.). §64.3(b)(4) is automatically satisfied when COMS is used, according to §64.3(d)(2)(ii).
Averaging Period	The averaging period is on a six-minute block basis (4.2.3.). §64.3(b)(4) is automatically satisfied when COMS is used, according to §64.3(d)(2)(ii).

CAM is not applicable to the control of the following pollutants emitted by PSEUs Unit 1:

Carbon monoxide

The Unit 1 is not subject to CAM for carbon monoxide (CO) because the unit is not subject to an emission limitation or standard for CO (cf. 40 C.F.R. §64.2(a)(1)). Additionally, the unit does not use a control device to control CO emissions (cf. 40 C.F.R. §64.2(a)(2)).

Oxides of Nitrogen

The Unit 1 is not subject to CAM for oxides of nitrogen (NO_x) because such emissions from the unit are subject to emission standards (i.e., 45CSR26) that apply solely under an emissions trading program that has been approved by the Administrator for NO_x (cf. 40 C.F.R. §64.2(b)(1)(iv)).

Sulfur Dioxide

The Unit 1 is not subject to CAM for sulfur dioxide (SO₂) because the unit is subject to emission standards prescribed by an Acid Rain Program pursuant to sections 404, 405, 406, 407(a), 407(b), or 410 of the Act (cf. 40 C.F.R. §64.2(b)(1)(iii)).

Volatile Organic Compounds

The Unit 1 is not subject to CAM for volatile organic compounds (VOC) because the unit is not subject to an emission limitation or standard for VOC (cf. 40 C.F.R. §64.2(a)(1)). Additionally, the unit does not use any control device to control VOC emissions (cf. 40 C.F.R. §64.2(a)(2)).

Hazardous Air Pollutants (HAPs)

The Unit 1 is not subject to CAM for hazardous air pollutants (HAPs) because the unit is not subject to an emission limitation or standard for HAPs (cf. 40 C.F.R. §64.2(a)(1)).

CAM is not applicable to the control of the following pollutants emitted by the Auxiliary Boilers (Em. Unit IDs *Aux 1* & *Aux 2*):

Carbon monoxide

The Auxiliary Boilers are not subject to CAM for carbon monoxide (CO) because the units are not subject to an emission limitation or standard for CO (cf. 40 C.F.R. §64.2(a)(1)). Additionally, the units do not use any control device to control CO emissions (cf. 40 C.F.R. §64.2(a)(2)).

Oxides of Nitrogen

The Auxiliary Boilers are subject to the NO_x Budget Trading Program under 45CSR1. Thus, such standards for emissions of NO_x from the Auxiliary Boilers are exempt from CAM in accordance with §64.2(b)(1)(iv).

Particulate Matter

The Auxiliary Boilers (Em. Unit IDs *Aux 1* & *Aux 2*) are subject to an emission limitation for particulate matter. One of the general applicability criteria of CAM is that a PSEU must use a “control device to achieve compliance with any such emission limitation or standard” (cf. §64.2(a)(1)). The Auxiliary Boilers have no control device for PM. Therefore, CAM is not applicable to the limits of PM for the Auxiliary Boilers.

Sulfur Dioxide

The Auxiliary Boilers (Em. Unit IDs *Aux 1* & *Aux 2*) are subject to an emission limitation for sulfur dioxide. One of the general applicability criteria of CAM is that a PSEU must use a “control device to achieve compliance with any such emission limitation or standard” (cf. §64.2(a)(1)). The Auxiliary Boilers have no control device for SO₂. Therefore, CAM is not applicable to the limits of SO₂ for the Auxiliary Boilers.

Volatile Organic Compounds

The Auxiliary Boilers (Em. Unit IDs *Aux 1* & *Aux 2*) are not subject to CAM for volatile organic compounds (VOC) because the pre-control device potential emissions are less than the major source threshold. Since the applicability criteria §64.2(a)(3) is not met for VOC, CAM does not apply.

In summary, 40 C.F.R. Part 64 applies only to the standards and limitations for particulate matter from Unit 1. CAM does not apply to any standard or limit of any pollutant from the Auxiliary Boilers. Therefore, in every regulatory citation that contains 40 C.F.R. Part 64, the emission unit ID *Unit 1* has been added (unless the condition is already specific to Unit 1).

6.0 Requirement 6.1.2 was added to extend the applicability of 45CSR§2-5 for fugitive dust control systems of the limestone handling system.

7.0 On December 23, 2008, the U.S. Court of Appeals for the D.C. Circuit decided to remand to EPA without vacature the Clean Air Interstate Rule (CAIR). As such, these Conditions (3.1.12 through 3.1.14) have been added to the permit.

8.0 In **section 4.1.9**, 3-hour block average limitation for SO₂ from Unit 1 stack (MT1) was added. This limitation is associated with Reg. 13 Permit determination and accompanying modeling report for the installation of the flue gas desulfurization System at this facility as a pollution control device without the need to obtain a construction permit. Since the modeling was performed at a 1.0 lb/mmBtu emission rate and the model does its evaluation on a 3-hour block basis, this limitation was added. That limit will maintain the Reg. 13 permit determination of a pollution control device. **Section 4.1.10** follows the same logic as in section 4.1.9.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

40 C.F.R 60 Subpart ZZZZ	Because of the size and installation dates of equipment, no limitations or other monitoring within Subpart ZZZZ apply. No notifications or other general requirements are applicable. Due to this fact, 40 C.F.R 60 Subpart ZZZZ language (section 3.1.11) has been removed.
40 C.F.R. 60 Subpart Da	The Mountaineer Plant electric utility steam generating unit commenced construction prior to September 18, 1978 and have not undergone a “modification” as defined in 40 C.F.R. 60.
40 C.F.R. Part 63 Subpart DDDDD	The United States Court of Appeals for the District of Columbia Circuit on July 30, 2007 ruled the Boiler MACT, 40 C.F.R. Part 63 Subpart DDDDD, be vacated and remanded. As a result of the court’s decision, a MACT for this source category will have to be implemented via a 112(j) case-by-case MACT determination or a subsequent 40 C.F.R. Part 63 proposal. Per DAQ’s “Interim Guidance for Existing Sources – Boiler and Process Heater MACT Vacature,” dated September 7, 2007, the DAQ does not intend to implement the provisions of the Boiler and Process Heater MACT for existing sources at this time. US EPA will be issuing guidance regarding the 112(j) case-by-case MACT determination of equivalent emission limitation in the future. Due to these facts, the 40 C.F.R. Part 63 Subpart DDDDD placeholder language (section 3.1.11) has been removed.

40 C.F.R. 60 Subpart K, Ka	There are no tanks containing "Petroleum Liquids" that are greater than 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Kb	All tanks storing volatile organic liquids are below 19,812 gallons in capacity.
40 C.F.R. 60 Subpart Y	All other sections of the existing conveyor system except Conveyor M5 are not Subpart Y facilities per 60.250(b) because they were constructed before October 24, 1974.
40 C.F.R. 60 Subpart OOO	The storage pile is not included in the description of an affected facility therefore any equipment used to unload the limestone and transfer it to storage and the storage pile itself is not within the applicability of Subpart OOO.
45 CSR1 & 45CSR 26	The CAIR rules 45CSR39 and 45CSR40 effectively provide a budget trading program for the control and reduction of the pollutant NOx emitted from affected sources. Historically, this pollutant has been regulated under rules 45CSR1 (NOx Budget Trading program for non-EGUs) and 45CSR26 (NOx Budget Trading program for EGUs). Since the CAIR rules are providing the NOx regulation, rules 45CSR1 and 45CSR26 are no longer necessary and will be repealed effective May 1, 2009.

Request for Variances or Alternatives

(Description of any requests for variances, etc. If none, write "None.")

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date:

Ending Date:

All written comments should be addressed to the following individual and office:

Beena Modi
 Title V Permit Writer
 West Virginia Department of Environmental Protection
 Division of Air Quality
 601 57th Street SE
 Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The

Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Comment #1

Permanent Shutdown - It was noted that the WVDEP is proposing to remove the original permit condition 3.1.5 (Permanent Shutdown) from the current permit. Rather than shifting subsequent permit terms forward through renumbering, would the WVDEP be amenable to list permit condition 3.1.5 as "reserved" and maintain the current numbering for subsequent permit terms? This would be helpful to AEP, as it minimizes revisions that must be made in the electronic environmental information management system that AEP is implementing.

Response to Comment #1

Condition 3.1.5 has been revised per request.

Comment #2

NO_x Budget Trading Program - AEP suggests that the permit condition related to the NO_x Budget Trading Program (condition 3.1.9 in proposed permit) be deleted from the permit and the section marked as "reserved". The West Virginia Legislature recently approved the elimination of the NO_x Budget Trading Program rules in light of the CAIR rules effective dates. The most recent feedback that we've received indicates that the NO_x Budget Trading Program rules will be eliminated as of May 1, 2009.

Response to Comment #2

NO_x Budget Trading Program (condition 3.1.9 in draft/proposed permit) has been deleted from the permit and has been marked as "reserved" and numbered 3.1.10. See the Non-Applicability Determinations section for explanation.

Comment #3

Clean Air Mercury Rule - AEP suggests that the permit condition related to the Clean Air Mercury Rule (condition 3.1.11 in proposed permit) be revised slightly. We suggest that the following be added as a notation to the condition covering the applicability of Compliance Order #CO-R37-C-2008-4. "The DAQ Director concluded in Compliance Order #CO-R37-C-2008-4 that the only 45 CSR 37 requirement applicable after the Federal CAMR program was vacated was to obtain a Hg budget permit, which is contained in Section 21 of the rule. Refer to Compliance Order #CO-R37-C-2008-4 which holds the requirements of 45 CSR 37, Section 21, in abeyance pending resolution of the ongoing CAMR litigation or final action is taken by the State to revoke this order or to repeal, revise or replace 45 CSR 37."

Response to Comment #3

CAMR Mercury Budget Trading Program (condition 3.1.11 in draft/proposed permit) has been revised per request. Refer to Determination and Justification section 4.0 for explanation and 3.1.13 of final permit.

Comment #4

MACT 112(j) Hammer - AEP noted that permit condition 3.1.11 (MACT 112(j) Hammer) from the current permit has been eliminated as previously suggested. However, rather than shifting subsequent permit terms forward through renumbering, AEP suggests that permit condition 3.1.11 be listed as "reserved" to maintain the current numbering for subsequent permit terms as describe in the above comments.

Response to Comment #4

Change has been incorporated in condition 3.1.11 per comment.

Comment #5

Stack Testing – In the second sentence of condition 3.3.1.b of the proposed permit, the reference to “section 3.2.1.a” should be “3.3.1.a.”

Response to Comment #5

Condition 3.3.1.b has been revised per request and is now numbered 3.2.1.b, based on comment # 7 below.

Comment #6

Certified Emission Statement - The hardcopy of the proposed permit received by the company did not have a number associated with this condition (should be 3.5.4) and the letter "C" is missing from the first word. These should be added to the final permit.

Response to Comment #6

Above change has been incorporated in the final permit and is now numbered 3.4.4, based on comment #7 below.

Comment #7

Monitoring Requirements - If the WVDEP agrees, AEP would prefer that new permit subsection 3.2, labeled as “reserved”, be eliminated. This new subsection requires the renumbering of all subsequent subsections in section 3. As previously noted, maintaining the current numbering for existing permit terms will minimize revisions that must be made in the electronic environmental information management system.

Response to Comment #7

Section 3.2 has been eliminated and section 3 has been revised per request.

Comment #8

Rule 13 Permit - The abbreviation for the precipitator within the brackets in this condition (condition 4.1.13 in proposed permit) should be “ESP” instead of “ESN”.

Response to Comment #8

Above change has been incorporated in condition 4.1.13.

Comment #9

Rule 13 Permit - AEP believes that a revision is appropriate for new permit condition (condition 4.1.14 in proposed permit) concerning the dry sorbent injection system. The terms “continuously operate” and “minimize” are not appropriate for the system installed at the Mountaineer Plant. The system was never designed to “minimize” SO₃ emissions. In fact, as previously discussed with the WVDEP, high dry sorbent injection rates can lead to adverse interactions with other aspects of plant operation. Further, while the dry sorbent injection system is designed with a level of redundancy, is not designed with a wholesale back-up system. If the WVDEP believes a permit condition concerning dry sorbent injection system operation is necessary at this time, we believe the permit condition should be written in such a way that the limitations of the system are recognized. We suggest that the permit condition should state that “The permittee shall operate the SO₃ control system using dry sorbent-injection consistent with the technological limitations of the system and good operation and maintenance practices whenever the Unit is operating, though not during its start-up/shut-down.”

Response to Comment #9

The WVDEP has changed the language in the final permit to address AEP’s comment and use AEP’s suggested language with minor exceptions which we believe to be acceptable to both parties.

Comment #10

Condition 4.1.24, Auxiliary Boiler CO Emissions and Condition 4.1.25, Auxiliary Boiler VOC Emissions -

The limitations in these conditions are for each auxiliary boiler. Only Auxiliary Boiler 1 is cited as having the limitations applicable to it in these conditions. Please add Auxiliary Boiler 2 to each condition in addition to Auxiliary Boiler 1.

Response to Comment #10

Auxiliary Boiler 2 has been added to conditions 4.1.24 and 4.1.25.

Comment #11

Monitoring Requirements - AEP believes that new permit condition 4.2.7 is too vague as it is currently written. If the WVDEP believes a permit condition concerning monitoring and recordkeeping for the dry sorbent injection system operation is necessary at this time, we believe the permit condition should be written more specifically. We suggest that the permit condition require that the total daily dry sorbent usage rate (tons per day) be maintained by the facility and be made available to the DAQ upon request. Other operational data associated with the operation of the dry sorbent injection system are already monitored and maintained in accordance with other permit conditions. For example, steam generator heat input and unit electrical load and average opacity values are already monitored and maintained using the existing continuous emission monitoring and data acquisition and handling systems.

Response to Comment #11

The WVDEP has revised this language to more clearly and specifically identify the monitoring and recordkeeping required and believes the revised language addresses AEP's concern/comment.

Comment #12

CO and VOC Stack Testing - The third sentence in this condition (condition 4.3.5 in proposed permit) is requested to be removed since this is a continuing condition being carried forward from a prior permit and the plant has implemented the testing on a 5-year cycle. The most recent test came earlier this year. Having to retest within 15 months of completing the most recent test is not necessary to verify compliance. The remainder of this condition should remain, only removing the requirement to complete a compliance test within 12 months of the effective date of the permit.

Response to Comment #12

This language was intended only for the initial permit and was inadvertently left in the draft/proposed renewal. Therefore, condition 4.3.5 has been revised per request.