

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-06100001-2014**
Application Received: **December 23, 2013**
Plant Identification Number: **061-00001**
Permittee: **Monongahela Power Company**
Facility Name: **Fort Martin Power Station**
Mailing Address: **800 Cabin Hill Drive, Greensburg, PA 15601**

Revised: NA

Physical Location: Maidsville, Monongalia County, West Virginia
UTM Coordinates: 591.91 km Easting • 4,395.95 km Northing • Zone 17
Directions: From Morgantown, WV travel on WV-100 approximately 3.6 miles.
Turn Right onto State Route 53, continue to Power Plant

Facility Description

The Fort Martin Power Station is a fossil fuel fired electric generation facility with two units (560 MW and 568 MW) and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of two (2) 4,984 MMBtu/hr coal-fired boilers, two (2) 115.3 MMBtu/hr auxiliary boilers, two (2) 320 KW diesel-fired emergency generators, boiler-related lime handling and various support operations such as coal handling, ash handling, wastewater treatment and various storage 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	2012 Actual Emissions
Carbon Monoxide (CO)	915.9	593.8

Regulated Pollutants	Potential Emissions	2012 Actual Emissions
Nitrogen Oxides (NO _x)	15,303.8	4,000.0
Lead (Pb)	<0.1	0.085
Particulate Matter (PM _{2.5})	830.9	Not Reported
Particulate Matter (PM ₁₀)	2,456.9	Not Reported
Total Particulate Matter (TSP)	4,651.5	536.4
Sulfur Dioxide (SO ₂)	135,405.1	3435.8
Volatile Organic Compounds (VOC)	127.1	71.2

PM_{2.5} and PM₁₀ are a components of TSP.

Hazardous Air Pollutants	Potential Emissions	2012 Actual Emissions
Antimony	0.00502	Not Reported
Arsenic	0.0544	0.006
Beryllium	<0.01	0.004
Cadmium	0.0168	0.014
Chromium	0.125	0.125
Cobalt	0.03	0.03
Manganese	0.183	0.166
Mercury	0.302	0.160
Nickel	0.15	0.132
Selenium	4.44	0.652
Hydrochloric Acid (HCl)	1,828.6	32
Hydrogen Fluoride (HF)	234.3	9.6
Sulfuric Acid (H ₂ SO ₄)	289.9	Not Reported
Dioxin Compounds	0.0000032	Not Reported
Polycyclic Aromatic Compounds	0.0408	Not Reported
Acetaldehyde	1.04	0.673
Acrolein	0.53	Not Reported
Benzene	2.37	1.535
Benzyl Chloride	1.27	0.824
Cyanide Compounds	4.55	2.951
Formaldehyde	0.47	0.314

Hazardous Air Pollutants	Potential Emissions	2012 Actual Emissions
Isophorone	1.06	0.685
Methyl Bromide	0.29	Not Reported
Methyl Chloride	0.96	0.626
Methyl Ethyl Ketone	0.71	0.460
Methyl Hydrazine	0.31	Not Reported
Methylene Chloride	0.53	Not Reported
Propionaldehyde	0.69	0.449
Toluene	0.44	0.286

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

Title V Program Applicability Basis

This facility has the potential to emit 135,405.1 tons per year of SO₂, 15,303.8 tons per year of NO_x, 2,456.91 tons per year PM₁₀, 915.9 tons per year CO, 127.1 tons per year VOC's, 1,828.6 tons per year of HCl, 234.3 tons per year of HF, and 289.9 tons per year of H₂SO₄. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Monongahela Power Company's Fort Martin Power Station 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:	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	NSR Permits
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	45CSR16	Standard of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
	45CSR2	Control of Particulate matter emissions from indirect heat exchangers
	45CSR10	Control of sulfur dioxide emissions from indirect heat exchangers
	45CSR33	Acid Rain Provisions and Permits
	45CSR34	Emission Standards for Hazardous Air Pollutants
	45CSR39	Control of annual Nitrogen Oxide emissions

	45CSR40	Control of ozone season Nitrogen Oxide Emissions
	45CSR41	Control of annual Sulfur Dioxide emissions
	40 C.F.R. 64	Compliance Assurance Monitoring
	40 C.F.R Part 72	Permits Regulation
	40 C.F.R. 73	Sulfur dioxide allowance
	40 C.F.R. 74	Sulfur dioxide Opt-ins
	40 C.F.R. 75	Continuous Emissions Monitoring
	40 C.F.R. 76	Nitrogen Oxides Reduction Program
	40 C.F.R. 77	Excess Emissions
	40 C.F.R. 78	Appeal Procedure for Acid Rain Program
	40 C.F.R. 60 Subpart Kb	Storage Vessels
	40 C.F.R. 60 Subpart Db	Standards of Performance for Industrial–Commercial-Institutional Steam Generating Units
	40 C.F.R. 60 Subpart OOO	Standards of performance for Nonmetallic Mineral Processing Plants
	40 C.F.R. 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Engines
	40 C.F.R. 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
	40 C.F.R 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
	40 C.F.R 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units.
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the 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, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2705	6/22/2007	
R13-2711A	11/14/2007	
G60-C006A	1/10/2011	

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," which may be downloaded from DAQ's website.

Determinations and Justifications

Since the last revision of this permit, the 45CSR13 permit G60-C006A replaced G60-B006. These changes along with changes in regulations, and equipment removals have been incorporated in this renewal. The changes are as follows:

Section 1.0

- Made the following changes to Table: 1.2 :
 - Removed the Insignificant tanks (other than No. 2 Fuel oil tanks) since they have their own group source ID in Table 1.1.
 - Added Source IDs A190FM, A202FM(EDQP-T001), A203FM(EDQP-T002), A204FM(EDQP-T003), A211FM.
- Removed Table 1.5 since the temporary coal crusher and associated equipment are no longer at the facility.
- Made the following changes to Table 1.6 after renaming it Table 1.5:
 - Due to G60-C006A replacing G60-B006, added new Emission Units EDQP-3 and EDQP-T003.
- Removed R13-2729 since this equipment has been removed from the facility. The DAQ has requested that the permittee get R13-2729 placed inactive.

Section 3.0

- Removed condition 3.1.11, MACT 112(j) Hammer Application, since US EPA has promulgated a standard pursuant to 40 C.F.R. 63 for industrial, commercial, institutional boilers and process heaters.
- Removed condition 3.1.12, CAMR Mercury Budget Trading Program, since 45CSR37 was repealed on June 1, 2009.
- Removed condition 3.1.16 since 45CSR42 was repealed in 2012.
- Renumbered remaining conditions in section 3.1.
- Removed Condition 3.5.10 since all new engines are <500hp, thus making the condition non-applicable.
- Removed Condition 3.5.11 since 45CSR42 was repealed in 2012.
- **Clarification of compliance with 45CSR§2-5.1. - Condition 3.1.12** – The requirement of this condition is that of 45CSR§2-5.1. which is to not allow any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. The significant sources of fugitive particulate matter are listed in the Emission Units Tables of Section 1.1. The Emission Units Tables also list the method of fugitive particulate matter control in the “Control Device” column. Since no monitoring, recordkeeping, or reporting is specified in 45CSR§2-5.1., monitoring and recordkeeping has been added under the authority of 45CSR§30-5.1.c. as condition 3.4.4. Under condition 3.4.4., the permittee is required to inspect the fugitive dust control systems weekly from May 1 through September 30 and monthly from October 1 through April 30 to ensure that they are operated and maintained in conformance with their designs. Records of these inspections, as well as all scheduled and non-scheduled maintenance stating any maintenance or corrective actions taken as a result of the weekly and/or monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken are

required to be maintained. Also records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility are required to be maintained.

Section 4.0

- Added placeholder language as condition 4.1.12 for Electric Utility Steam Generating Units (EGU) MACT. A one year extension has been granted to Fort Martin Power Station so the compliance date is April 16, 2016.
- Updated the emission limits in conditions 4.1.4 and 4.1.15 to correspond to the change in the design capacity of the Auxiliary boilers since the initial Title V permit was issued in 2003.
- From condition 4.1.13 (formerly 4.1.12), removed “(Appendix B)” which was the Acid Rain Permit and which is no longer included as an attachment.
- From condition 4.1.17.a (formerly 4.1.16.a), removed “(Acid Rain Permit is included in Appendix B)” since the Acid Rain Permit is no longer included as an attachment.
- Removed former conditions 4.1.21 – 4.1.23 since the cited federal conditions have changed and as limited use boilers, Aux Blr 1A and 1B are not subject to the emission limitations of 40 C.F.R. 63, Table 2.
- Added new condition 4.1.22 which states that the annual capacity factor for each boiler shall be less than 10%, making the auxiliary boilers limited use boilers.
- Renumbered the remaining conditions.
- Added condition 4.1.25 for Industrial, Commercial, and Institutional Boilers and Process Heaters MACT. For existing sources, the initial tune-up deadline is January 31, 2016.
- Updated condition 4.2.1. to reference Revision 6 of the “Monitoring and Recordkeeping Plan 45CSR2 and 45CSR10.”
- In condition 4.3.1, the frequency of retesting is dependent upon the test results of the previous testing and since it is possible that more than one series of tests may be required during the permit term (e.g. tests are required annually, once/2years, or once/3years), the language in Condition 4.3.1 has been revised to exclude the dates of the last tests. Instead, those dates are included here in the fact sheet. Boiler #1 and Boiler #2 were last tested in August 2013. They are on Cycle 3 (once/3 years). The next test must be conducted by August 2016.
- Conditions 4.4.4 and 4.4.5 reference other conditions in section 4.0. Due to the changes in condition numbering, the referenced condition numbers needed to be updated.
- The content of condition 4.4.6 was no longer needed since it referenced former conditions 4.1.21 – 4.1.23 which were removed, so it was replaced with recordkeeping requirements pertaining to limiting the annual capacity factor to 10% and maintaining fuel use records.
- The content of condition 4.5.4 was no longer needed since it referenced former conditions 4.1.21 – 4.1.23 which were removed, so it was replaced with the tune-up reporting requirements of 40 C.F.R. §§63.7550(b) and (c)(1).

Section 5.0

- Added condition 5.4.1 containing the requirements of 40 C.F.R §60.116b(c).

Section 6.0

- According to the Environmental Contact at Fort Martin Power Station, the Portable Coal Crusher and Associated Equipment have been removed from the facility. Therefore, Section 6.0 was deleted and the following sections were renumbered. DAQ has requested that the company send in notification that R13-2729 is inactive.

Section 7.0 (Formerly Section 8.0)

- Updated the table in condition 7.1.1 to include Source ID EDQP-3 and changed the citation from 45CSR13, G60-B006 to 45CSR13, G60-C006.

- Added condition 7.1.4 which is the cover page for 45CSR13, G60-C006A, and shows which parts of the general permit apply to emission units EDQP-1, EDQP-2, and EDQP-3.
- Emission units EDG-1 and EDG-2 are existing emergency CI engines ≤ 500HP at a major source of HAPs subject to 40 C.F.R. 63 Subpart ZZZZ. The following changes were made to incorporate the applicable 40 C.F.R. 63 Subpart ZZZZ requirements.
 - Conditions 7.1.5 – 7.1.14 contain the applicable limitations and standards of: 40 C.F.R. §63.6602, 40 C.F.R. §63.6604(b), 40 C.F.R. §63.6605, 40 C.F.R. §§63.6625(e), (f), (h), and (i), 40 C.F.R. §§63.6640(a) and (f)(1) through (f)(3), 40 C.F.R. §63.6645(a)(5) and Table 2c of 40 C.F.R. 63 Subpart ZZZZ.
 - Condition 7.4.1 are the recordkeeping requirements of 40 C.F.R. §§63.6655(e) and (f).
 - Condition 7.5.1 contains the reporting requirements of Footnote 1 of Table 2c of 40 C.F.R. 63 Subpart ZZZZ.
 - Condition 7.5.2 contains the reporting requirements of 40 C.F.R. §63.6640(e)

Appendices

- Appendix A: “Monitoring and Recordkeeping Plan 45 CSR 2 and 45 CSR 10 Utility Boilers” was updated to Revision 6, dated October 22, 2013.
- Appendix B: Since the Acid Rain permit does not need to be included in the Title V permit, it has been removed from Appendix B of the renewal permit. Condition 4.1.17.a. (formerly 4.1.16.a) has been revised to delete the language stating that the Acid Rain permit is included in Appendix B. The requirement to hold an Acid Rain permit will remain in section 4.1. of the Title V permit. The Acid Rain Permit requirements are considered to be incorporated by reference.
- The CAIR Permit Application is now Appendix B.
- Appendix C is now G60-C006A which replaced G60-B006.
- Appendix D: “Compliance Order” from the last renewal has been removed since 45CSR37 was repealed in 2009 and that is what the compliance order pertained to.

CAM

This is a 2nd renewal. Since CAM was addressed in the first renewal and there were no modifications to the facility that would have triggered a CAM review subsequent to the first renewal, a CAM evaluation was not made.

Non-Applicability Determinations

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

Non-Applicable Requirement	Emission Unit (Point ID)	Reason for Non-Applicability
45CSR5	Facility-Wide	Rule to Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations, and Coal Disposal Areas is not applicable to the facility because 45CSR 2 is applicable. (per 45CSR§§5-2.4.b, 2.14)
45CSR§10-8	Blr 1A & Blr 1B (Aux Blr Stack)	The auxiliary boiler burn distillate fuel only and, as per 45CSR§10-10.3 are exempt from 45CSR§10-8.
45CSR17	Facility-Wide	Rule to Prevent and Control Particulate Matter Air Pollution from Material Handling, Preparation, Storage, and Other Sources of Fugitive Particulate Matter is not applicable because 45CSR2 is applicable, as stated in section 6.1 of 45CSR17.
40 C.F.R. 60	B1 (Stack 1),	Boilers B1 and B2 commenced construction prior to September

Subpart Da	B2 (Stack 2)	18, 1978.
40 C.F.R. 60 Subpart K	Facility-Wide	Fort Martin Power Station does not have any tanks storing petroleum liquids (as defined in 40 C.F.R. §60.111) that were constructed after June 11, 1973 and prior to May 19, 1978 and exceed 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Ka	Facility-Wide	Fort Martin Power Station does not have any tanks storing petroleum liquids (as defined in 40 C.F.R. §60.111 a) that were constructed after May 18, 1978 and prior to July 23, 1984 and exceed 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Kb	Facility-Wide	Fort Martin Power Station has no tanks constructed after July 23, 1984 that (a) exceed 75m ³ (19,813 Gal) in capacity and store a volatile organic liquid (as defined in 40 C.F.R. §60.111 b), (b) have a design capacity greater than or equal to 75m ³ but less than 151m ³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa (2.18 psia) or (c) exceed 151 m ³ (39,864 Gal) in capacity and store a volatile organic liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa (0.51 psia).

Request for Variances or Alternatives

None.

Insignificant Activities

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

Comment Period

Beginning ate: November 7, 2014
 Ending Date: December 8, 2014

Point of Contact

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

Robert Mullins
 West Virginia Department of Environmental Protection
 Division of Air Quality
 601 57th Street SE
 Charleston, WV 25304
 Phone: 304/926-0499 ext. 1243 • Fax: 304/926-0478
 Robert.A.Mullins@wv.gov

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.

Response to Comments (Statement of Basis)

(Choose) Not applicable.

OR

Describe response to comments that are received and/or document any changes to the final permit from the draft/proposed permit.