

# Fact Sheet



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

Permit Number: **R30-06100001-2015**  
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*

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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

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### 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

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Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2012 Actual Emissions
Carbon Monoxide (CO)	915.9	593.8

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

*PM<sub>2.5</sub> and PM<sub>10</sub> are a components of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2012 Actual Emissions</b>
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 <sub>2</sub> SO <sub>4</sub> )	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 SO<sub>2</sub>, 15,303.8 tons per year of NO<sub>x</sub>, 2,456.91 tons per year PM<sub>10</sub>, 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 H<sub>2</sub>SO<sub>4</sub>. 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 40 C.F.R. 64 40 C.F.R Part 72 40 C.F.R 73 40 C.F.R. 74 40 C.F.R. 75 40 C.F.R. 76 40 C.F.R. 77 40 C.F.R. 78 40 C.F.R. 60 Subpart Kb 40 C.F.R. 60 Subpart Db  40 C.F.R. 60 Subpart OOO  40 C.F.R. 60 Subpart IIII  40 C.F.R. 63 Subpart ZZZZ  40 C.F.R 63 Subpart DDDDD  40 C.F.R 63 Subpart UUUUU	Control of annual Sulfur Dioxide emissions Compliance Assurance Monitoring Permits Regulation Sulfur dioxide allowance Sulfur dioxide Opt-ins Continuous Emissions Monitoring Nitrogen Oxides Reduction Program Excess Emissions Appeal Procedure for Acid Rain Program Storage Vessels Standards of Performance for Industrial– Commercial-Institutional Steam Generating Units  Standards of performance for Nonmetallic Mineral Processing Plants Standards of Performance for Stationary Compression Ignition Engines National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters 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.
- For condition 4.1.13 (formerly 4.1.12), renamed “Appendix B” which is the Acid Rain Permit to “Appendix D.”
- For condition 4.1.17.a (formerly 4.1.16.a), renamed “Appendix B” to “Appendix D.”
- 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 the current version 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  $\leq$  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 September 10, 2015.
- 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. Appendix D is now the Acid Rain permit.

**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 Subpart Da	B1 (Stack 1), B2 (Stack 2)	Boilers B1 and B2 commenced construction prior to September 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.

Non-Applicable Requirement	Emission Unit (Point ID)	Reason for Non-Applicability
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 <sup>3</sup> (19,813 Gal) in capacity and store a volatile organic liquid (as defined in 40 C.F.R. §60.111b), (b) have a design capacity greater than or equal to 75m <sup>3</sup> but less than 151m <sup>3</sup> 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 <sup>3</sup> (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 Date: 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 57<sup>th</sup> 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)**

Comments were received from the Sierra Club on December 5, 2014 regarding the Draft/Proposed Permit for Monongahela Power Company, Fort Martin Power Station, R30-06100001-2014. Comments on the Draft/Proposed permit and the factsheet for Fort Martin Power Station were also received from Paul Wentworth of US EPA Region III on December 15, 2014. As a result of the comments from the Sierra Club and EPA, the review period for this permit was changed from concurrent to sequential. The following changes were made to the Proposed permit to address the Sierra Club and EPA comments:

- Condition 4.1.17 of the permit contains the requirements for the Acid Rain program and includes the requirement for the source to hold an Acid Rain permit and to comply with the Acid Rain emission limits for nitrogen oxides. Acid Rain permits are not renewed at the same time as the Title V permit and are not evaluated as part of the Title V operating permit renewal. In Fort Martin Power Station's Draft/Proposed Title V renewal, the applicable requirements of the Acid Rain permit were incorporated by reference because it eliminated the need to administratively amend the Title V operating permit when the Acid Rain permit was modified or renewed. However, upon reconsideration, the DAQ has determined that the Acid Rain permit will be attached as Appendix D in the Title V permit renewal.
- The reference to 40 CFR Part 75 (Acid Rain) that was included in section I.A.2.a of the 45CSR2 and 45CSR10 monitoring plan from the Draft/Proposed permit was removed. The exemption in 45CSR§2-3.2 does not mention 40 CFR Part 75 and the 45CSR2 and 45CSR10 monitoring plans are not intended to assure compliance with the applicable requirements in 40 CFR Part 75.

Other changes made to the Proposed Title V permit that are not the direct result of comments received from the Sierra Club and EPA include the following:

- Changes to the 45CSR2 and 45CSR10 monitoring plan:

In 45CSR§2-8.2.a, it states that the owner or operator of a fuel burning unit shall monitor compliance with section 3 (visible emission requirements) as set forth in an approved monitoring plan. Since the monitoring plan submitted in accordance with 45CSR2 and located in Appendix A of the Title V permit is for visible emissions, references to the 45CSR§2-4.1.a limit were removed.

45CSR§2-3.2 provides an exemption from COMS for fuel burning units which employ wet scrubbing systems for emission controls. Since wet flue gas pollution control systems are used on Units B1 and B2, Fort Martin Power Station is exempt from using COMS to measure opacity. 45CSR2A provides guidance and clarification for complying with the testing, monitoring, recordkeeping and reporting requirements of 45CSR2. Since the facility is exempt from using COMS, they are subject to the requirements for Non-COMS based monitoring plans as specified in 45CSR§2A-6.3. 45CSR§2A-6.3.a.1 requires the facility to perform Method 9 readings a minimum of once per month per stack which was included in the Draft/Proposed permit. In addition to the monthly Method 9 visible emissions monitoring, 45CSR§2A-5.1.a requires the permittee to conduct Method 9 visible emission tests in conjunction with the particulate matter weight emission testing outlined in 45CSR§2A-5.2.a. This requirement was added to the revised 45CSR2 and 45CSR10 monitoring plan. Also, 45CSR§2A-6.3.a.2 requires the permittee to define operating parameters to demonstrate compliance with the visible emissions limit. 45CSR§§2A-6.3.a.2, 6.3.a.3, 6.3.a.4, 6.3.a.5, 6.3.a.6, and 6.3.a.8 which specify the monitoring parameter requirements have been added as necessary in the revised 45CSR2 and 45CSR10 monitoring plan in Appendix A.

In Section III.C of the 45CSR2 and 45CSR10 monitoring plan included in the Draft/Proposed permit, exception reporting for 45CSR2 included the requirement to submit semi-annual CAM reports. As previously stated, CAM applies to 45CSR§2-4.1.a, while the 45CSR2 and 45CSR10 monitoring plan applies to 45CSR§2-3.1 and has its own exception reporting requirements for Non-COMS Based Monitoring under 45CSR§2A-7.2.c. Therefore, the previous CAM reporting has been replaced with the reporting requirements from 45CSR§2A-7.2.c.

- Since the Fort Martin Power Station's Title V renewal was not issued in 2014, the permit number was changed from "R30-06100001-2014" to "R30-06100001-2015."

No additional comments were received from EPA regarding the Proposed permit.