

Fact Sheet



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

Permit Number: **R30-06100027-2019**
Application Received: **July 19, 2018**
Plant Identification Number: **03-054-06100027**
Permittee: **Morgantown Energy Associates**
Mailing Address: **555 Beechurst Avenue, Morgantown, WV 26505**

Physical Location:	Morgantown, Monongalia County, West Virginia
UTM Coordinates:	589.20 km Easting • 4388.10 km Northing • Zone 17
Directions:	From Charleston take Interstate 79 North to Exit 152. Bear right onto Fairmont Rd (US-19) approximately 1.9 miles. Turn right onto Holland Ave. (US-19) approximately 1.4 miles to University Avenue. Turn left on Beechurst Ave. Facility is located on the left approximately 0.8 miles.

Facility Description

The Morgantown Energy Facility is a fossil fuel fired cogeneration facility and operates under SIC code 4911. The facility consists of two (2) 375 MMBtu/hr waste coal and coal fired circulating fluidized bed (CFB) boilers and related facilities, including a steam transmission line and two (2) 132 MMBtu/hr auxiliary natural gas-fired boilers. Each CFB boiler is rated at 280,000 lb/hr of steam at 1500-psi and 950°F and is capable of 294 KPPH. Gross generation is normally 57 to 59 MW, with an export of 50 MW to the grid. Thus, 7 to 9 MW of generation is internally used. Combined operation of the CFB and auxiliary boilers occurs occasionally. Typically, combined operation occurs when one CFB boiler is taken off-line for maintenance causing one or both auxiliary boilers to be brought on-line. Combined operation may also occur during periods of high steam demand from West Virginia University. When this occurs, combined operation consists of both CFBs being on-line as well as one or both auxiliary boilers. It is also occasionally necessary to take both CFBs off-line. The auxiliary boilers are brought on-line in this situation to meet the steam demand for West Virginia University. Other supporting operations include coal handling, limestone handling, and ash handling, as well as 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	2017 Actual Emissions
Carbon Monoxide (CO)	558.5	144.7
Nitrogen Oxides (NO _x)	1,314	1141.8
Particulate Matter (PM _{2.5})	75.7	10.8
Particulate Matter (PM ₁₀)	82.8	11.3
Total Particulate Matter (TSP)	100.3	62.1
Sulfur Dioxide (SO ₂)	1,248	703.2
Volatile Organic Compounds (VOC)	32.9	4.3

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2017 Actual Emissions
Hydrogen Chloride (HCl)	25*	25
Hydrogen Fluoride (HF)	1.8	0.2
Total of miscellaneous HAPs (individually < 1.0 tpy PTE)	4.2	2.6
Regulated Pollutants other than Criteria and HAP	Potential Emissions	2017 Actual Emissions
Radionuclides	0.0039	0.0038

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

**The PTE has been revised for a design heat input increase of 3% as a change in method of operation through Permit R14-0007C. This increase is due to an increase in fuel to the boilers in order to facilitate an enhanced removal efficiency for SO₂ in order to meet the 40 CFR 63 Subpart UUUUU (MATS) SO₂ limit as a surrogate for HCL.*

Title V Program Applicability Basis

This facility has the potential to emit 558.5 tpy of CO; 1,314 tpy of NO_x; 1,248 tpy of SO₂; and 25.0 tpy of HCl. 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, Morgantown Energy Associates 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:

45CSR2	To Prevent And Control Particulate Air Pollution From Combustion Of Fuel In Indirect Heat Exchangers
45CSR6	Control Of Air Pollution From Combustion Of Refuse
45CSR10	Control of Sulfur Dioxide Emissions from Indirect Heat Exchangers.
45CSR11	Prevention Of Air Pollution Emergency Episodes
45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation
45CSR14	Permits For Construction And Major Modification Of Major Stationary Sources For The Prevention Of Significant Deterioration Of Air Quality
45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
45CSR30	Requirements For Operating Permits
45CSR34	Emission Standards For Hazardous Air Pollutants
45CSR43	Cross-State Air Pollution Rule To Control Annual Nitrogen Oxide Emissions, Annual Sulfur Dioxide Emissions, and Ozone Season Nitrogen Oxides Emissions
40 C.F.R 60, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units
40 C.F.R 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R 60, Subpart Y	Standards of Performance for Coal Preparation Plants
40 CFR Part 61, Subpart M	National Emission Standard For Asbestos
40 CFR Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units
40 CFR Part 64	Compliance Assurance Monitoring
40 CFR Part 82, Subpart F	Ozone depleting substances
40 C.F.R. Part 97, Subpart AAAAA	CSAPR NO _x Annual Trading Program
40 C.F.R. Part 97, Subpart CCCCC	CSAPR SO ₂ Group 1 Trading Program
40 C.F.R. Part 97, Subpart EEEEE	CSAPR NO _x Ozone Season Group 2 Trading Program
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.

State Only:

45CSR4	To Prevent And Control The Discharge Of Air Pollutants Into The Open Air Which Causes Or Contributes To An Objectionable Odor Or Odors
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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>)
R14-0007D	September 24, 2018	

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

This is a renewal of the Title V permit which was issued on January 24, 2014 and modified on August 30, 2016. This renewal is also incorporating a Minor Modification (MM02) to the existing Permit R30-06100027-2014. The minor modification is for the incorporation of the changes associated with permit R14-0007D to install a dry ash loadout by converting a wet ash loadout to a dry ash loadout. Substantial changes to the most recent version of the Title V Permit (including the minor modification) consist of the following:

1) Title V Boilerplate changes

- **Conditions 3.5.3., 3.5.5. and 3.5.6.** - These conditions were revised to require electronic submittal of the Title V compliance certifications (annual and semi-annual), self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols to the WV DAQ.

2) Section 1.1 – “Emission Units Table”

- Revised the information for Emission Unit S012F to show it as a dry ash loadout. (per MM02)
- Added the SNCR Reagent tank under the “Storage Tank Fugitives” section. Since this tank does not have any applicable requirements, the facility never identified it with an emission unit ID number. It has been added to the table only for the purposes of showing it as being on site.

3) Condition 3.1.11. – “TR” and “Transport Rule (TR)” were replaced with “CSAPR” and “Cross-State Air Pollution Rule (CSAPR)” respectively and “45CSR43” has been added to the citation of authority.

4) Condition 3.1.12. - “TR” and “Transport Rule (TR)” were replaced with “CSAPR” and “Cross-State Air Pollution Rule (CSAPR)” respectively and “45CSR43” has been added to the citation of authority. Also, “Group 2” has been added in the title.

5) Condition 3.1.13. - “TR” and “Transport Rule (TR)” were replaced with “CSAPR” and “Cross-State Air Pollution Rule (CSAPR)” respectively and “45CSR43” has been added to the citation of authority.

6) Section 4.0. - The requirements for initial compliance for 40 CFR 63 Subpart DDDDD and Subpart UUUUU have been satisfied and therefore removed from the permit as described below. Also, where

appropriate, the Subpart DDDDD and Subpart UUUUU requirements have been updated to the language of the current versions of these subparts.

In the current permit, after the citation of authority, several permit conditions have the phrases “*This requirement is subject to the compliance date in condition 4.1.10.*” or “*This requirement is subject to the compliance date in condition 4.1.14.*” Since compliance has been met by the dates specified and the corresponding permit conditions have been removed, these phrases have also been removed.

Note: Some permit conditions have been deleted and the subsequent conditions renumbered in the renewal permit. Where permit conditions have been referenced throughout the permit, the condition number has been revised to reflect the new revised number. In the discussion below, if the condition numbers in the renewal permit have changed, “(CP)” will be used to indicate the current permit condition and “(RP)” will be used to indicate the renewal permit condition.

- **Condition 4.1.10. (CP)** – The compliance date for Subpart DDDDD has been met rendering this condition obsolete. Therefore, this condition has been deleted.
- **Condition 4.1.11. (CP) [4.1.10. (RP)]** – The requirement has been updated with the current version of Subpart DDDDD and the initial tune-up requirement has been removed.
- **Condition 4.1.12. (CP)** – The one-time energy assessment per Subpart DDDDD has been completed. Therefore, this condition has been deleted.
- **Condition 4.1.14. (CP)** – The compliance date for Subpart UUUUU has been met rendering this condition obsolete. Therefore, this condition has been deleted. The letters referenced in the citation of authority and attached as Appendix B and Appendix C have also been removed.
- **Condition 4.1.15. (CP)** – The initial compliance with Subpart UUUUU has been met. Therefore, this condition has been deleted in its entirety.
- **Condition 4.1.19.(9) (CP) [4.1.15.(9) (RP)]** – The dates have been updated to the current version of Subpart UUUUU.
- **Condition 4.3.12.** – The dates of the most recent compliance tests and the current testing frequency based on the test results have been added to this condition.
- **Conditions 4.3.14., 4.3.15., and 4.3.16. (CP)** – The initial compliance requirements have been met. Therefore, these conditions have been deleted.
- **Condition 4.3.18. (CP) [4.3.15. (RP)]** – Updated Subpart UUUUU language
- **Condition 4.3.24. (CP)** – The initial compliance requirements have been met. Therefore, this condition has been deleted.
- **Condition 4.4.1.b** – The phrase “required per condition 4.1.5.” has been deleted from the renewal permit. It should have been previously deleted and refers to language that was removed in conjunction with the minor modification (MM01) to R30-06100027-2014.
- **Condition 4.4.6. and 4.4.7. (CP)** – The requirements in these two conditions were taken from 40 CFR 63§§7555(i) and (j) of the 2013 version of Subpart DDDDD. These two requirements have been deleted from the current version of Subpart DDDDD. Therefore, these conditions have been deleted.

- **Condition 4.4.8. (CP) [4.4.6. (RP)]** – Since the requirements in this condition are applicable to all four boilers (i.e., the CFB boilers and the Auxiliary boilers), and given that 40 CFR §63.7560 and 40 CFR §63.10033 are identical and only contain the requirements of this condition (i.e., §§(a), (b), and (c)), the citation of authority has been simplified as “[40 CFR §63.7560; 40 CFR §63.10033; 45CSR34].”
 - **Conditions 4.5.7., 4.5.8., and 4.5.9. (CP)** – The Notice of compliance status requirements of these conditions have been met. Therefore, these conditions have been deleted.
 - **Condition 4.5.11. (CP) [4.5.8. (RP)]** –
 - ❖ **§a.** - The current version of 40 CFR §63.7550(c)(1) added paragraph (c)(5)(xvii) to be included in the compliance report. Therefore, it has been added in this condition.
 - ❖ **§b.** - The first compliance report required by 40 CFR §§63.7550(b)(1) and (2) of this condition has been met and therefore not included in the renewal permit. The current version of Subpart DDDDD includes §63.7550(b)(5) to allow for the submittal of compliance reports to coincide with the Title V reporting. Therefore, §63.7550(b)(5) has been added to this condition.
 - ❖ The last paragraph in this condition has been updated to the language in the current version of Subpart DDDDD.
 - **Condition 4.5.12. (CP)** – The Notice of compliance status requirement of this condition has been met. Therefore, this condition has been deleted.
 - **Condition 4.5.13. (CP)** – This condition was marked as reserved and therefore has been deleted.
 - **Conditions 4.5.19., 4.5.19.(1), and 4.5.19.(4) (CP) [4.5.14., 4.5.14.(1), and 4.5.14.(4) (RP)]** – The dates have been updated to the current version of Subpart UUUUU.
 - **Condition 4.5.19.(6) (CP)** – This requirement is obsolete and therefore has been deleted
- 7) **Section 5.0.**
- **Condition 5.1.4.** – In conjunction with Minor Modification MM02 to incorporate the changes in Permit R14-0007D, the Table in this condition has been revised to increase the “Flyash Transport (Silo Vent)” particulate emission limitation from 0.184 to 0.334 lb/hr. Also, a new row was added to the Table for the “Dry Ash Loadout.”
- 8) **APPENDIX A** – References to the “Transport” Rule and “TR” have been changed to “Cross-State Air Pollution” Rule and “CSAPR.” The appendix has also been rearranged into a modified layout.
- 9) **APPENDIX B and APPENDIX C** – These appendices have been removed. (See discussion for condition 4.1.14. in Item 6 above.)
- 10) **40 CFR Part 64 (Compliance Assurance Monitoring)** – There were no revisions to the permit, including those associated with minor modifications MM01 and MM02, that required review under this regulation or changes to the existing CAM plan.

Non-Applicability Determinations

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

1. **40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.** Each of the boilers (CFB and auxiliary) has a maximum design heat input capacity greater than 100 MMBtu/hr. Therefore, in accordance with 40 CFR §60.40c(a), the boilers are not subject to Subpart Dc.
2. **40 CFR 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.** None of the tanks at the facility are greater than 40,000 gallons capacity. Therefore, in accordance with applicability criteria §60.110(a), Subpart K does not apply to the facility's tanks.
3. **40 CFR 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.** None of the tanks at the facility are greater than 40,000 gallons capacity. Therefore, in accordance with applicability criteria §60.110a(a), Subpart Ka does not apply to the facility's tanks.
4. **40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.** None of the tanks at the facility are greater than 75 m³ (19,812.9 gallons) capacity. Therefore, in accordance with applicability criteria §60.110b(a), Subpart Kb does not apply to the facility's tanks.
5. **40 CFR 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants.** In accordance with §60.670(a)(1), this NSPS applies to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. The permittee's facility operates some of this equipment. Under §60.671, the NSPS defines a *nonmetallic mineral* to include limestone, but neither coal nor gob (i.e., waste or refuse coal) are included. Therefore, this Subpart does not apply to the equipment used to process coal or gob at the facility. Also under §60.671, the NSPS defines a *Nonmetallic mineral processing plant* to mean "any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670(b) and (c)." The key to evaluating the facility with respect to this definition is the language "crush or grind". Even though limestone is a *nonmetallic mineral* as defined in the NSPS, it is not crushed or ground at the facility. Limestone is received already crushed and ground to the appropriate size, and is not subsequently crushed or ground at the facility. This operating scenario agrees with the process flow diagrams in the 2008 renewal application, and was confirmed by the permittee in technical correspondence (6/03/08 e-mail). Therefore, this Subpart does not apply to the processing of limestone at the facility.
6. **40 CFR 60 Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units.** The CFB Boilers are not commercial and industrial solid waste incineration (CISWI) units as defined in §60.2265. This is due to the fact that they are fired by a blend of virgin bituminous coal and coal refuse as well as natural gas for startup purposes. All of these fuels meet the definition of "traditional fuels" in 40 CFR §241.2 and hence are not considered solid wastes.
7. **40 CFR 63 Subpart Q – National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.** After review of the permittee's Process Flow Schematic and Equipment Table in the 2008 renewal application, it was determined that the facility does not have an *industrial process cooling tower*, which is defined in §63.401. Therefore, the facility does not meet the applicability criteria of §63.400(a), and hence this MACT does not apply to the facility.

8. **40 CFR 63 Subpart T - National Emission Standards for Halogenated Solvent Cleaning.** The batch cold solvent cleaning machine at the facility does not utilize any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
9. **40 CFR 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.** The facility is not an area source of HAP emissions; therefore, it does not meet the applicability criteria of this regulation.
10. **40 CFR 98 Subpart D - Electricity Generation.** Facility is not subject to the Acid Rain Program and is not required to monitor and report CO₂ mass emissions year-round according to 40 CFR Part 75.
11. **45CSR5 – To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas.** A “Coal Preparation Plant” is defined under 45CSR§5-2.4., and this definition includes any facility that prepares coal by crushing, and further such definition includes all coal handling operations associated with a crushing process. The permittee crushes coal at the facility using a grinding mill (Em. Unit ID S003J) and hammer mill (Em. Unit ID S003K), and there is coal handling equipment associated with the crushing. However, since the facility is subject to 45CSR2, according to 45CSR§5-2.4.b. the *facility* is not included in the definition of a “Coal Preparation Plant”. Therefore, 45CSR5 does not apply to the facility, and particularly its coal crushing operations and associated coal handling.
12. **45CSR7 – To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations.** Since the facility is subject to 45CSR2, 45CSR§7-10.1. provides an exemption from 45CSR7.
13. **45CSR17 – To Prevent and Control Particulate Matter Air Pollution from Material Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter.** The facility is characterized by the handling and storage of materials that have the potential to produce fugitive particulate if not properly controlled. However, since the facility is subject to 45CSR2, it is not subject to this rule in accordance with the exemption granted in 45CSR§17-6.1.
14. **45CSR33 – Acid Rain Provisions and Permits and 40 CFR Part 72 – Permits Regulation.** The facility is exempt from “Acid Rain” requirements in accordance with the exemption granted under 40 CFR §72.6(b)(5). It follows, then, that the facility is also exempt from the corresponding state rule 45CSR33.

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: May 29, 2019

Ending Date: June 28, 2019

Point of Contact

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

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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)

Not applicable.