West Virginia Department of Environmental Protection Division of Air Quality





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

Permit Number: **R30-06100027-2024** Application Received: **December 26, 2023** Plant Identification Number: **03-54-061-00027** Permittee: **Morgantown Energy Associates** Mailing Address: **555 Beechurst Avenue, Morgantown, West Virginia 26505**

Physical Location: UTM Coordinates: Directions: Morgantown, Monongalia County, West Virginia
589.20 km Easting • 4388.10 km Northing • Zone 17
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 Associates (MEA) is a fossil fuel fired steam generation facility providing steam to West Virginia University (WVU). The facility operates under SIC code 4961. 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. Although the CFB boilers are designed to burn solid fuel (i.e., coal/coal refuse) and natural gas, they are operated using the start-up burners firing only natural gas as required in a federally enforceable permit with a maximum design capacity of 138.6 MMBtu/hr input. The facility also consists of two (2) 160/146.5 MMBtu/hr auxiliary natural gas (NG)/ultra-low sulfur diesel (ULSD)-fired boilers and two 100/95.79 backup steam generator NG/ULSD fired boilers. The CFB and auxiliary boilers are operated as necessary to meet the steam demand at WVU. The backup boilers are brought on-line to meet the steam demand at WVU in case of potential natural gas shortages causing a fuel supply curtailment to the facility. Various tanks with insignificant emissions are also located at the facility. 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	2022 Actual Emissions	
Carbon Monoxide (CO)	213.66	30.33	
Nitrogen Oxides (NO _X)	450.96	73.77	
Particulate Matter (PM _{2.5})	37.63	1.41	
Particulate Matter (PM ₁₀)	37.75	1.41	
Total Particulate Matter (TSP)	39.06	5.40	
Sulfur Dioxide (SO ₂)	14.89	0.51	
Volatile Organic Compounds (VOC)	17.5	3.82	
PM_{10} is a component of TSP.			

Hazardous Air Pollutants	Potential Emissions	2022 Actual Emissions
Total HAPs	5.73	1.31

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

Title V Program Applicability Basis

This facility has the potential to emit 213.66 tpy of CO and 450.96 tpy of NO_x . Due to this facility's potential to emit over 100 tons per year of criteria pollutant, 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 Dc	Standards of Performance for Small Industrial-Commercial	
-	Institutional Steam Generating Units	
40 CFR Part 61, Subpart M	National Emission Standard For Asbestos	
40 CFR Part 63 Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for	
-	Industrial, Commercial, and Institutional Boilers Area Sources	
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	

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	Date of	Permit Determinations or Amendments That
Consent Order Number	Issuance	Affect the Permit (<i>if any</i>)
R14-0007I	December 22, 2022	

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 July 16, 2019 and modified on July 20, 2021, and August 1, 2023. Substantial changes to the most recent version of the current Title V Permit (R30-06100027-2019 MM02, MM03, MM04, MM05) consist of the following:

1) Page 1 – Facility information

- SIC Code revised Primary SIC code from "4911" to "4961." The facility no longer generates electricity and only generates steam to meet the steam demands of WVU. As such, the facility's SIC code has changed from "4911 - Cogeneration (Steam and Electric) Service" to "4961 - Fossil Fuel Fired Steam Generating Facility."
- Facility Description Revised from "Cogeneration (Steam and Electric) Service" to "Fossil Fuel Fired Steam Generating Facility" to correspond with the new SIC code.

2) Section 2.2.

Removed "TBtu" from the acronym list since it is no longer referenced in the permit. The acronym was previously used in the MATS (40 CFR 63 Subpart UUUUU) requirements which were removed during the last modification.

3) Section 3.0.

Condition 3.1.12. - Replaced Group3 with Group 2. Also replaced 40 CFR §97.1006 with 40 CFR §97.806 in the citation of authority (COA) and added 45CSR43 to the COA. A stay of 40 CFR 97 Subpart GGGGG is currently in effect for West Virginia and West Virginia sources remain subject to the Group 2 Ozone Season Trading Program (40 CFR 97 Subpart EEEEE). Therefore, the above mentioned changes have been made to this condition and the Group 3 requirements have been replaced with the Group 2 requirements in Appendix A. Furthermore, 45CSR43 has been added to the COA because 45CSR43 adopts by reference 40 CFR 97 Subpart EEEEE whereas 40 CFR 97 Subpart GGGGG has not yet been adopted.

4) Section 4.0.

Condition 4.5.3. – Corrected a typographical error by revising the reverence to permit condition 4.5.3 to permit condition 4.5.2.

5) Appendix A

Replaced the CSAPR NO_X Ozone Season Group 3 Trading Program Requirements (40 CFR §97.1006) with the CSAPR NO_X Ozone Season Group 2 Trading Program Requirements (40 CFR §97.806). (see discussion in Item 3 above)

Non-Applicability Determinations

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

- 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.
- 2. 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.
- 3. 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. The tanks at the facility are either less than 75 m³ (19,812.9 gallons) capacity or have a

capacity greater than or equal to 75 m³ but less than 151 m³ (39,890 gallons) storing a liquid with a maximum true vapor pressure less than 15.0 kPa. Therefore, in accordance with applicability criteria 60.110b(a) or 60.110b(b), Subpart Kb does not apply to the facility's tanks.

- 4. **40 CFR 60 Subpart OOO** *Standards of Performance for Nonmetallic Mineral Processing Plants.* The facility does not utilize any combination of equipment that is used to crush or grind any nonmetallic mineral as defined in §60.671. Therefore, the facility is not a "nonmetallic mineral processing plant" and is not subject to this subpart.
- 5. 40 CFR 60 Subpart CCCC Standards of Performance for Commercial and Industrial Solid Waste Incineration Units. The CFB Boilers are solely natural gas-fired boilers and therefore are not commercial and industrial solid waste incineration (CISWI) units as defined in §60.2265.
- 6. **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.
- 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.
- 8. **40 CFR 63 Subpart UUUUU -** *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units*. The CFB boilers are designated as "gas-fired" units, therefore pursuant to 40 CFR §63.9983(b) they are not subject to the requirements of this subpart which is applicable to coal- and oil-fired electric utility steam generating units.
- 9. **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.
- 10. **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.
- 11. **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.
- 12. **45CSR33** *Acid Rain Provisions and Permits* and 40 CFR Part 72 *Permits Regulation*. The facility does not produce electricity and therefore is not subject to Acid Rain requirements. It follows, then, that the facility is also exempt from the corresponding state rule 45CSR33.
- 13. **40 CFR Part 64** *Compliance Assurance Monitorin*g. There are no pollutant-specific emissions units that meet all three applicability requirements of §64.2(a).

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:April 10, 2024Ending Date:May 10, 2024

Point of Contact

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

Frederick Tipane West Virginia Department of Environmental Protection Division of Air Quality 601 57th Street SE Charleston, WV 25304 304/414-1910 frederick.tipane@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)

Not applicable.