

Fact Sheet



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

Permit Number: **R30-07300022-2020**
Application Received: **June 19, 2019**
Plant Identification Number: **073-00022**
Permittee: **Pleasants Energy, LLC**
Mailing Address: **10319 South Pleasants Highway, St. Marys, WV 26170**

Physical Location: Waverly, Pleasants County, West Virginia
UTM Coordinates: 468.629 km Easting • 4353.573 km Northing • Zone 17
Directions: Site is located on the eastern side of State Route 2 in Pleasants County,
approximately 1 mile east of Waverly

Facility Description

The facility is a 300 MW simple cycle electric generating peaking station operating under SIC 4911. The Pleasants Energy Station includes two General Electric (GE) 7FA class simple cycle combustion turbines, each nominally rated at 167.8 MW (while firing natural gas at an ambient temperature of 59° F and 60% relative humidity) including generator, exciter, and associated auxiliary mechanical and electrical systems. The primary fuel is natural gas. Low sulfur distillate fuel oil is utilized as a backup fuel.

Each gas turbine includes an advanced firing combustion turbine air compressor section, gas combustion system with advanced dry low NO_x control, power turbine, and a 60-Hz, 18 (kV) generator.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2019 Actual Emissions
Carbon Monoxide (CO)	477.4	4.27
Nitrogen Oxides (NO _x)	465.8	149.88
Particulate Matter (PM _{2.5})	83.5	21.08
Particulate Matter (PM ₁₀)	83.5	51.78
Total Particulate Matter (TSP)	83.5	51.78
Sulfur Dioxide (SO ₂)	13.8	1.09
Volatile Organic Compounds (VOC)	21.0	9.80

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2019 Actual Emissions
Total HAPs (<i>All individual HAPs have a PTE < 10 tpy</i>)	5.29	4.78

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

Title V Program Applicability Basis

This facility has the potential to emit 465.8 tons per year of NO_x and 477.4 tons per year of CO. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Pleasants Energy, LLC 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	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 of Air Pollution for the Prevention of Significant Deterioration
45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40CFR60.
45CSR30	Operating permit requirement.
45CSR33	Acid Rain Provisions and Permits

45CSR34	Emission Standards for Hazardous Air Pollutants Pursuant to 40 C.F.R. Part 63
45CSR43	Cross-State Air Pollution Rule
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
40 C.F.R. 60 Subpart GG	Standards of Performance for Stationary Gas Turbines.
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines.
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)
40 C.F.R. Part 97, Subpart AAAAA	TR NO _x Annual Trading Program
40 C.F.R. Part 97, Subpart CCCCC	TR SO ₂ Group 1 Trading Program
40 C.F.R. Part 97, Subpart EEEEE	TR NO _x Ozone Season Trading Program
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 72	Permits Regulation
40 C.F.R. Part 73	Sulfur Dioxide Allowance System Permits Regulation
40 C.F.R. Part 74	Sulfur Dioxide Opt-ins
40 C.F.R. Part 75	Continuous Emissions Monitoring
40 C.F.R. Part 76	Nitrogen Oxides Reduction Program
40 C.F.R. Part 77	Excess Emissions
40 C.F.R. Part 78	Appeals Procedure for Acid Rain Program
40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:

45CSR4	No objectionable 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>)
R33-55349-2020-4	December 14, 2015	
R14-0034C	December 19, 2019	

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

Minor modification (MM02) application was submitted on November 21, 2019 to incorporate changes from R14-0034C and has been included in this Title V renewal. The R14-0034C Class I administrative update changed the language in R14-0034B condition 4.1.3 to match the language in Title V condition 4.1.12. Title V condition 4.1.12 was already updated in previous modification (SM01) per company's request. However, the language in the underlying permit R14-0034B was not updated. The changes made as a result of R14-0034C and minor modification (MM02) makes the Title V condition 4.1.12 match the underlying requirement, condition 4.1.3 of R14-0034C.

Non-Applicability Determinations

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

- a. **45CSR2** - *To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers*. According to permit #R13-2373A the natural gas turbines (GT1 & GT2) are subject to 45CSR2. However, the turbines are not indirect heat exchangers and by definition are not fuel burning units. The turbines use the combustion gases to turn the turbine blades.
- b. **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*. Tank T1 was constructed after July 23, 1984, has a capacity >151 m³, and the fuel oil it stores has a true maximum vapor pressure less than 3.5 kilopascals. Therefore, pursuant to 40 CFR §60.110b(b), tank T1 is exempt from this subpart.
- c. **40 CFR 60 Subpart GG** - *Standards of Performance for Stationary Gas Turbines*. The combustion turbines were modified after February 18, 2005 and are therefore not subject to this rule but are subject to 40 CFR 60 Subpart KKKK.
- d. **40 CFR Part 64** - *Compliance Assurance Monitoring*. The only potential PSEU applicable to turbines GT1 and GT2 is for nitrogen oxide (NO_x). NO_x is the only pollutant from the turbines for which there are emission controls. The NO_x controls for the turbines while burning natural gas are inherent to the design and operation of the turbines. Water injection is used to control NO_x whenever fuel oil is fired in the turbines. NO_x continuous emission monitors (CEMS) are specified in the original Title V permit in order to monitor NO_x emissions thus satisfying the exemption of 40 CFR§64.2(b)(1)(vi). The facility is also subject to the Acid Rain Program requirements and therefore also meets the exemption of 40 CFR§64.2(b)(1)(iii).
- e. **40 CFR 60 Subpart TTTT** - *Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units (EGUs)*. This regulation was finalized on October 23, 2015 and applies to new units that commenced construction after January 8, 2014 or modification or reconstruction after June 18, 2014. These combustion turbines commenced construction prior to the applicability date and are not considered a "new" source. Further, these combustion turbines do not meet the definition of "reconstructed" or "modified" per the NSPS, so Subpart TTTT is not applicable to the combustion turbines.

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 22, 2020

Ending Date: May 22, 2020

Point of Contact

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

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 41283 • Fax: 304/926-0478
Beena.j.modi@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.