

Fact Sheet



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

Permit Number: **R30-09900080-2019**
Application Received: **September 18, 2018**
Plant Identification Number: **03-54-099-00080**
Permittee: **Big Sandy Peaker Plant, LLC**
Mailing Address: **1044 North 115th Street, Suite 400, Omaha, NE 68154**

Physical Location: Kenova, Wayne County, West Virginia
UTM Coordinates: 360.9 km Easting • 4,245.0 km Northing • Zone 17
Directions: Site is located between the Big Sandy River and State Route 52 and borders the Kenova Water Authority Treatment Plant on the south and Sunoco Chemical Plant on the North.

Facility Description

The Big Sandy Peaker Plant, LLC operates a 330 Megawatt (MW) natural gas-fired electric generating peaking station. The Big Sandy Peaker Plant is covered by SIC Code of 4911 and NAICS Code of 221112. The facility consists of twelve (12) Pratt & Whitney FT8 Twin Pac jet turbine engines arranged so that there is one engine on each end of 6 gas turbine generators. The facility has the potential to operate twenty-four (24) hours a day for seven (7) days per week and fifty-two (52) weeks per years.

Emissions Summary

| Plantwide Emissions Summary [Tons per Year] | | |
|---|---------------------|-----------------------|
| Regulated Pollutants | Potential Emissions | 2018 Actual Emissions |
| Carbon Monoxide (CO) | 157.18 | 11.52 |
| Nitrogen Oxides (NO _x) | 247.60 | 152.83 |
| Particulate Matter (PM _{2.5}) | 26.23 | 5.80 |

| Regulated Pollutants | Potential Emissions | 2018 Actual Emissions |
|--|---------------------|-----------------------|
| Particulate Matter (PM ₁₀) | 26.23 | 5.80 |
| Total Particulate Matter (TSP) | 26.23 | 5.80 |
| Sulfur Dioxide (SO ₂) | 5.36 | 0.53 |
| Volatile Organic Compounds (VOC) | 18.59 | 0.29 |

PM₁₀ is a component of TSP.

| Hazardous Air Pollutants | Potential Emissions | 2018 Actual Emissions |
|--------------------------|---------------------|-----------------------|
| Formaldehyde | 0.30 | 0.13 |
| Total HAPs | 0.30 | 0.18 |

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

Title V Program Applicability Basis

This facility has the potential to emit 157.18 tons per year of CO and 247.60 tons per year of NO_x. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Big Sandy Peaker Plant 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, Permission to Commence Construction, and Procedures for Evaluation. |
| 45CSR16 | Standards of Performance for New Stationary Sources |
| WV Code § 22-5-4 (a) (14) | The Secretary can request any pertinent information such as annual emission inventory reporting. |
| 45CSR30 | Operating permit requirement. |

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|-----------------------------------|---|
| 45CSR33 | Acid Rain Provisions and Permits |
| 45CSR34 | Emission Standard for Hazardous Air Pollutants |
| 40 C.F.R. Part 60 Subpart GG | Standards of Performance for Stationary Gas Turbines |
| 40 C.F.R. Part 60 Subpart IIII | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines |
| 40 C.F.R. Part 61 Subpart M | Asbestos inspection and removal |
| 40 C.F.R. Part 63 Subpart ZZZZ | National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) |
| 40 C.F.R. Part 64 | Compliance Assurance Monitoring |
| 40 C.F.R. Part 72 | Permits Regulations |
| 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 | Acid Rain Nitrogen Oxides Emissions 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 |
| 40 C.F.R. Part 97, Subpart AAAAAA | TR NO _x Annual Trading Program |
| 40 C.F.R. Part 97, Subpart EEEEE | TR NO _x Ozone Season Trading Program |
| 40 C.F.R. Part 97, Subpart CCCCC | TR SO ₂ Group 1 Trading Program |

State Only:

| | |
|---------|--------------------------------|
| 45CSR4 | No objectionable odors. |
| 45CSR43 | Cross-State Air Pollution Rule |

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>) |
|-----------------------------------|------------------|--|
| R13-2383C | 10/09/2013 | |
| Acid Rain Permit R33-55284-2020-4 | 12/14/2015 | |

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

- Per company's request on June 13, 2019 through email, the Emissions Unit Description was updated in the Emission Units Table.
- In the 2018 Title V permit renewal application, the company requested that the CAM plan be modified in regard to the accuracy of the thermocouple (part of the CAM Plan) in Sections 4.2.3 & 4.7 from "+/- 2 °F " to "+/- 0.75%" per new thermocouple supplier's specifications. The specifications were submitted by the company on June 21, 2019 through email and this change was made in the permit.
- The Acid Rain Permit was added as Appendix C, 40 C.F.R. § 60.4209 (a) was added as condition 4.1.21 and 40 C.F.R. § 60.334 (g) was added in condition 4.2.2 of this permit.
- **Title V Boilerplate changes-**
 - Condition 3.1.9.** - This condition contained the requirements of 45CSR39 (CAIR NO_x Annual Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the "Cross-State Air Pollution Rule (CSAPR) Trading Program" of 40 CFR §97.406. The requirements of CSAPR have been added in Appendix B of the permit.
 - Condition 3.1.10.** - This condition contained requirements of 45CSR40 (CAIR NO_x Ozone Season Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the "Cross-State Air Pollution Rule (CSAPR) Trading Program" of 40 CFR §97.806. The requirements of the Transport Rule have been added in Appendix B of the permit.
 - Condition 3.1.11.** - This condition contained requirements of 45CSR41 (CAIR SO₂ Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the "Cross-State Air Pollution Rule (CSAPR) Trading Program" of 40 CFR §97.606. The requirements of the Transport Rule have been added in Appendix B of the permit.
- **APPENDIX B -** The CAIR requirements have been replaced with the Cross-State Air Pollution Rule Requirements.
- **40 CFR Part 64 -** Since CAM was addressed in the previous renewal and there were no modifications to the facility that would have triggered a CAM review subsequent to the previous renewal, a CAM evaluation was not made.
- **APPENDIX C -** This appendix which contains the Acid Rain Permit, has been added to the renewal permit.

Non-Applicability Determinations

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

| | |
|---------------------------------------|---|
| 45CSR2 | To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers. According to R13-2383C the natural gas turbines 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. Therefore, 45CSR2 is not listed as an applicable requirement for the turbines in the Title V permit. |
| 40 C.F.R. Part 60 Subpart KKK | Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant. The Big Sandy Peaker Plant is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both. |
| 40 C.F.R. Part 60 Subpart KKKK | Standards of Performance for Stationary Combustion Turbines. Big Sandy Peaker Plant's turbines were installed in 2000. The Big Sandy Peaker Plant is not subject to 40 C.F.R. Part 60 Subpart KKKK, which is for turbines that commenced construction, modification or reconstruction after February 18, 2005. |
| 40 C.F.R. Part 63 Subpart HH | National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. The Big Sandy Peaker Plant is not subject to Subpart HH since the Big Sandy Peaker Plant is not a natural gas production facility. |
| 40 C.F.R. Part 63 Subpart HHH | National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. The Big Sandy Peaker Plant is not subject to Subpart HHH since the Big Sandy Peaker Plant is not a natural gas transmission and storage facility. |
| 40 C.F.R. Part 63 Subpart YYYY | National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines. The Big Sandy Peaker Plant is not subject to Subpart YYYY since it is not a major source of HAPs. |

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: July 3, 2019
 Ending Date: August 2, 2019

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. 1228 • 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)

None