

# Fact Sheet



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

Permit Number: **R30-09900080-2024**  
Application Received: **December 20, 2023**  
Plant Identification Number: **03-54-099-00080**  
Permittee: **Big Sandy Peaker Plant, LLC**  
Mailing Address: **P.O. Box 415, Kenova, WV 25530**

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Physical Location: Kenova, Wayne County, West Virginia  
UTM Coordinates: 360.9 km Easting • 4245.0 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.

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### **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 year.

**Emissions Summary**

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2023 Actual Emissions</b>
Carbon Monoxide (CO)	157.18	17.74
Nitrogen Oxides (NO <sub>x</sub> )	247.60	117.53
Particulate Matter (PM <sub>2.5</sub> )	26.23	9.27
Particulate Matter (PM <sub>10</sub> )	26.23	9.27
Total Particulate Matter (TSP)	26.23	9.27
Sulfur Dioxide (SO <sub>2</sub> )	5.36	0.84
Volatile Organic Compounds (VOC)	18.59	0.45
<i>PM<sub>10</sub> is a component of TSP.</i>		
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2023 Actual Emissions</b>
Formaldehyde	0.30	0.20
Total HAPs	0.30	0.20

*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<sub>x</sub>. 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. |

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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.
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 AAAAA	CSAPR NO <sub>x</sub> Annual Trading Program
40 C.F.R. Part 97, Subpart EEEEE	CSAPR NO <sub>x</sub> Ozone Season Group 2 Trading Program
40 C.F.R. Part 97, Subpart CCCCC	CSAPR SO <sub>2</sub> 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> )
R13-2383D	2/21/2023	
Phase II Acid Rain Permit R33-55284-2025-5	12/22/2020	

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 the fourth renewal of the Title V permit. The following changes to the Title V permit were made as part of this renewal:

- ❖ 40 C.F.R. 64 – Since the last renewal, there have not been any changes in equipment at this facility that affected 40 CFR 64 Compliance Assurance Monitoring (CAM) applicability. The CAM requirements contained in Title V Section 4.0 remain unchanged except for the following:

Big Sandy Peaker Plant, LLC has an approved CAM Plan. They are requesting a modification to the Combustion Turbine Exhaust Gas Temperature (EGT) in Section 4.2.4 and 4.7. The lower limit is correct, but the upper limit should be 1440°F. This is based on the temperature drop across the power turbines of 490°F and the maximum temperature to the CO catalyst of 950°F. The upper limit should be 950°F + 490°F which is 1440°F. This information has been supplied by catalyst supplier BASF Corporation for the CAMET Oxidation Catalyst.

- ❖ In APPENDIX B, the updated CSAPR Trading Program was added. The CSAPR NOx Ozone Season Group 3 Trading Program has been stayed and WV sources remain subject to the CSAPR NOx Ozone Season Group 2 Trading Program.
- ❖ In APPENDIX B (Cross-State Air Pollution Rule Trading Program Title V Requirements), the monitoring requirements for SO<sub>2</sub>, NO<sub>x</sub>, and Heat Input were updated (based on the previous modification to stop using the LME monitoring method and install CEMS for NO<sub>x</sub>). Per company's request on August 16, 2024, through email, the following changes were made to the monitoring requirements for the SO<sub>2</sub>, NO<sub>x</sub>, and Heat Input parameters. These are shown in the Table labeled "CSAPR MONITORING REQUIREMENTS TABLE" located on Page 39 of 66, Item No. 2.

1. For SO<sub>2</sub> parameter– The "Excepted monitoring system pursuant to 40 CFR Part 75, appendix D" Row is checked instead of "Low Mass Emissions" Row.
2. For NO<sub>x</sub> parameter – The "Continuous emission monitoring system (CEMS) pursuant to 40 CFR part 75, Subpart B" Row is checked instead of "Low Mass Emissions" Row.
3. For Heat Input parameter - The "Excepted monitoring system pursuant to 40 CFR Part 75, appendix D" Row is checked instead of "Low Mass Emissions" Row.

- ❖ In APPENDIX C, the updated Acid Rain Permit was added
- ❖ 40 C.F.R. 60 Subpart IIII has been updated and as a result the following conditions were updated: 4.1.14, 4.1.20, and 4.3.5.

### Non-Applicability Determinations

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

<b>45CSR2</b>	<b>To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.</b> 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.
<b>40 C.F.R. Part 60 Subpart KKK</b>	<b>Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant.</b> 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.
<b>40 C.F.R. Part 60 Subpart KKKK</b>	<b>Standards of Performance for Stationary Combustion Turbines.</b> 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.
<b>40 C.F.R. Part 63 Subpart HH</b>	<b>National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.</b> The Big Sandy Peaker Plant is not subject to Subpart HH since the Big Sandy Peaker Plant is not a natural gas production facility.
<b>40 C.F.R. Part 63 Subpart HHH</b>	<b>National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities.</b> 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.
<b>40 C.F.R. Part 63 Subpart YYYY</b>	<b>National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.</b> 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: August 28, 2024

Ending Date: September 27, 2024

### **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 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 41283  
[Beena.j.modi@wv.gov](mailto: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)**

The following boilerplate changes have been made to the permit. These changes to the boilerplate became effective September 23, 2024.

- **Condition 3.1.6.** – Revised the citation to refer to the current version of the WV Code.
- **Condition 3.3.1.** – Revised the citation to refer to the current version of the WV Code.
- **Condition 3.3.1.b.** – Added “If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.”