

# Fact Sheet



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

Permit Number: **R30-09900081-2023**  
Application Received: **November 30, 2022**  
Plant Identification Number: **03-54-09900081**  
Permittee: **Appalachian Power Company**  
Facility Name: **Ceredo Generating Station**  
Facility Mailing Address: **1662 Walkers Branch Road, Huntington, WV 25704**  
Permittee Mailing Address: **1 Riverside Plaza, Columbus, OH 43215-2373**

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Physical Location: Ceredo, Wayne County, West Virginia  
UTM Coordinates: 365.97 km Easting • 4,247.45 km Northing • Zone 17  
Directions: Take Route 52 exit from I-64 and travel south for a short distance. Turn left onto Airport Road until you reach Team Industrial Services. Turn left to cross the railroad tracks and turn immediately right onto Walker Branch Road. Turn right at the first stop sign. The site is approximately one mile on the left.

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### **Facility Description**

Ceredo Generating Station is a 510 megawatt (MW nominal rating) peaking power plant. The facility consists of six identical natural gas-fired turbines (Emission Unit IDs: 1E - 6E) and a single natural gas-fired fuel gas heater (Emission Unit ID: 7E). The operation of the gas turbines is simple-cycle. Each turbine is a General Electric Model MS 7001EA/PG7121(EA) with a nominal output of 85 MW and a maximum heat input of approximately 1,215 mmBTU/hr HHV. The normal operation of the turbines is between 80% and 100% full load. The turbines are equipped with dry low-NO<sub>x</sub> (DLN) combustors (9 ppm of NO<sub>x</sub>) and CO oxidation catalysts. The turbines combust only natural gas. A single fuel gas heater is generally operated concurrently with the gas turbines. The heater is natural gas-fired with a heat input capacity of 14.2 mmBTU/hr.

SIC Code: 4911, NAICS Code: 221112

**Emissions Summary**

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2021 Actual Emissions</b>
Carbon Monoxide (CO)	241.16	66.08
Nitrogen Oxides (NO <sub>x</sub> )	247.68	66.73
Particulate Matter (PM <sub>2.5</sub> )	83.5	23.88
Particulate Matter (PM <sub>10</sub> )	83.5	23.88
Total Particulate Matter (TSP)	83.5	23.88
Sulfur Dioxide (SO <sub>2</sub> )	5.09	1.17
Volatile Organic Compounds (VOC)	14.25	4.52
<i>PM<sub>10</sub> is a component of TSP.</i>		
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2021 Actual Emissions</b>
Total HAPs	7.45	1.53

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

**Title V Program Applicability Basis**

This facility has the potential to emit 241.16 tpy of Carbon Monoxide and 247.68 tpy of Nitrogen Oxides. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, Appalachian Power Company is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30. This facility is also subject to Title IV (Acid Rain) requirements and is, therefore, 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	Open burning prohibited.
	45CSR10	To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	NSR Permit Requirements.
	45CSR16	Standards of Performance for New Stationary Sources.
	45CSR30	Operating Permit Requirements.
	45CSR33	Acid Rain Provisions and Permits.
	45CSR43	Cross-State Air Pollution Rule to Control Annual Nitrogen Oxides Emissions, Annual

<p>WV Code § 22-5-4 (a) (14)</p> <p>40 C.F.R. Part 60 Subpart A                  40 C.F.R. Part 60 Subpart Dc</p> <p>40 C.F.R. Part 60 Subpart GG</p> <p>40 C.F.R. Part 61                  40 C.F.R. Part 64                  40 C.F.R. Part 72                  40 C.F.R. Part 73                  40 C.F.R. Part 74                  40 C.F.R. Part 75                  40 C.F.R. Part 76</p> <p>40 C.F.R. Part 77                  40 C.F.R. Part 78                  40 C.F.R. Part 82 Subpart F                  40 C.F.R. Part 97 Subpart AAAAA                  40 C.F.R. Part 97 Subpart CCCCC                  40 C.F.R. Part 97 Subpart GGGGG</p> <p>State Only:           45CSR4</p>	<p>Sulfur Dioxide Emissions, and Ozone Season Nitrogen Oxides Emissions.                  The Secretary can request any pertinent information such as annual emission inventory reporting.                  NSPS General Provisions.                  Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.                  Standards of Performance for Stationary Gas Turbines.                  Asbestos Inspection and Removal.                  Compliance Assurance Monitoring.                  Permit Regulation.                  Sulfur Dioxide Allowance System.                  Sulfur Dioxide Opt-Ins.                  Continuous Emission Monitoring.                  Acid Rain Nitrogen Oxides Emission Reduction Program.                  Excess Emissions.                  Appeal Procedures.                  Ozone Depleting Substances.                  CSAPR NO<sub>x</sub> Annual Trading Program.                  CSAPR SO<sub>2</sub> Group 1 Trading Program.                  CSAPR NO<sub>x</sub> Ozone Season Group 3 Trading Program.</p> <p>No objectionable odors.</p>
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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
R13-2382D	April 14, 2016
R33-55276-2025-5	December 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

The following changes have been made to the Title V operating permit:

- I. Section 2.0. – General Conditions
  - A. In 45CSR30, the definition of “Secretary” was relocated to 45CSR§30-2.39. Therefore, in Condition 2.1.3., the reference to 45CSR§30-2.12. has been replaced with 45CSR§30-2.39.
  - B. The authority of Condition 2.11.4. has been updated to 45CSR§30-2.40. due to a change in 45CSR30.
  - C. The emergency and affirmative defense requirements of Section 2.17. have been removed from the operating permit, and Section 2.17. has been marked as “Reserved.” The authority for these conditions, 45CSR§30-5.7., has been removed from 45CSR30.
  - D. The authority of Condition 2.22.1. has been updated to 45CSR§30-5.3.e.3.B. due to the repeal of Rule 45CSR38 by Senate Bill No. 163.
- II. Section 3.0. – Facility-Wide Requirements
  - A. The following changes have been made to Conditions 3.1.9. and 3.1.11.
    1. 45CSR43 has been added to the authorities of Conditions 3.1.9. and 3.1.11. of the renewal permit. Rule 43 (effective: May 01, 2019) adopts the standards of the federal Cross-State Air Pollution Rule (CSAPR) found in 40 C.F.R. Part 97 Subpart AAAAA – CSAPR NO<sub>x</sub> Annual Trading Program and 40 C.F.R. Part 97 Subpart CCCCC – CSAPR SO<sub>2</sub> Group 1 Trading Program.
    2. References to the “Transport Rule” and “TR” were replaced with the “Cross-State Air Pollution Rule” and “CSAPR”, respectively.
  - B. Condition 3.1.10. has been updated to replace the requirements of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program (40 C.F.R. §97.806) with the CSAPR NO<sub>x</sub> Ozone Season Group 3 Trading Program (40 C.F.R. §97.1006).
    1. With 86 FR 23164 (effective: April 30, 2021), West Virginia was removed from the states listed in 40 C.F.R. §52.38(b)(2)(iii). Therefore, the provisions of 40 C.F.R. Part 97 Subpart EEEEE – CSAPR NO<sub>x</sub> Ozone Season Group 2 no longer apply to sources within West Virginia.
    2. Per 40 C.F.R. §52.38(b)(2)(v), the provisions of 40 C.F.R. Part 97 Subpart GGGGG apply to sources within West Virginia for emissions occurring in 2021 and each subsequent year. As such, Condition 3.1.10. has been updated to include the CSAPR NO<sub>x</sub> Ozone Season Group 3 Trading Program, and the authority has been changed to 40 C.F.R. §97.1006.
    3. The standards of 40 C.F.R. Part 97 Subpart GGGGG were not adopted in 45CSR43. Therefore, 45CSR43 has not been included in the authority of Condition 3.1.10.
  - C. Condition 3.5.3. has been updated to show changes that have been made to the U.S. EPA designee/address.
  - D. 45CSR§30-8 has been revised and no longer requires the submission of certified emissions statements. Condition 3.5.4. has been updated accordingly.
  - E. The requirements of Conditions 3.5.7. and 3.5.8.a.1. have been removed from the operating permit and replaced with “Reserved.” due to the removal of 45CSR§30-5.7. from the rule.
  - F. Due to revisions in 45CSR§30-5.1.c.3.C.2., “telefax” has been updated to “email” in Condition 3.5.8.a.2.

III. Section 4.0. – Combustion Turbine Requirements

- A. In Condition 4.4.1., Trimethylamine (TMA) and the associated emission factor have been removed from the table in the section for HAPs Emission Rates. TMA is not a HAP under Section 112 of the Clean Air Act.

IV. Appendices

- A. The CSAPR requirements in Appendix B of the Title V operating permit have been updated as follows:
1. References to the “Transport Rule” and “TR” have been replaced with the “Cross-State Air Pollution Rule” and “CSAPR”, respectively.
  2. The language of the requirements has been updated.
  3. References to the requirements of 40 C.F.R. Part 97 Subpart EEEEE – CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program have been removed from Appendix B and replaced with the requirements of 40 C.F.R. Part 97 Subpart GGGGG – CSAPR NO<sub>x</sub> Ozone Season Group 3 Trading Program.
- B. The Acid Rain Permit R33-55276-2020-4 has been replaced with the current Acid Rain Permit R33-55276-2025-5 in Appendix C of the operating permit. R33-55276-2025-5 was issued on December 22, 2020 and is effective from January 01, 2021 to December 31, 2025.

**Non-Applicability Determinations**

None.

**Request for Variances or Alternatives**

Requirement 4.2.2. includes a custom schedule for the monitoring of nitrogen and sulfur content of fuel (natural gas) burned in the six turbines. The change was based on approval letters from the EPA: Judith Katz, “Re: Request for Custom Fuel Monitoring Schedule under Subpart GG of NSPS” received on May 11, 2001, and Conniesue B. Oldham received on September 19, 2002.

**Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

**Comment Period**

Beginning Date: May 10, 2023

Ending Date: June 09, 2023

**Point of Contact**

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

Sarah Barron  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
304/926-0499 ext. 41915  
sarah.k.barron@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.