West Virginia Department of Environmental Protection Division of Air Quality





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

Permit Number: **R30-04900026-2025** Application Received: **July 24, 2024** Plant Identification Number: **03-54-049-00026** Permittee: **American Bituminous Power Partners, L.P.** Facility Name: **Grant Town Power Plant** Mailing Address: **P.O. Box 159, Grant Town, WV 26574** 

Physical Location:Grant Town, Marion County, West VirginiaUTM Coordinates:572.40 km Easting • 4379.25 km Northing • Zone 17Directions:From Charleston, take I-79 N to Exit 152. From Fairmont, take US Route19 North.Turn left in Rivesville onto County Route 17 and follow PawPaw Creek for 4 miles.The facility is located on the right.

#### **Facility Description**

American Bituminous Power Partners, L.P.'s Grant Town Power Plant is an electric generation facility firing eastern bituminous coal refuse with a total output of 80MWe. The facility consists of two (2) 551.9 MMBTU/hr coal refuse-fired circulating fluidized bed boilers and various supporting operations such as coal handling, ash handling, and limestone handling. The boilers are designed to accommodate a variety of fuels, but the primary fuel is eastern bituminous coal refuse (gob) supplemented with pond fines. Natural gas is used as a start-up fuel. 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. SIC: 4911, NAICS: 221112

Plantwide Emissions Summary [Tons per Year]				
<b>Regulated Pollutants</b>	Potential Emissions	2023 Actual Emissions		
Carbon Monoxide (CO)	821.89	142.49		
Nitrogen Oxides (NO <sub>X</sub> )	1933.86	936.57		
Particulate Matter (PM <sub>2.5</sub> )	128.24	17.24		
Particulate Matter (PM <sub>10</sub> )	150.65	38.21		
Total Particulate Matter (TSP)	390.45	138.39		
Sulfur Dioxide (SO <sub>2</sub> )	2,206.5	1949.3		
Volatile Organic Compounds (VOC)	38.68	13.20		

 $PM_{10}$  is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2023 Actual Emissions
Hydrogen Chloride	541	9.16
Hydrogen Fluoride	53.6	1.15
Mercury	0.09	<0.01
Chromium Compounds	0.87	0.07
Manganese Compounds	0.65	0.13

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

# **Title V Program Applicability Basis**

This facility has the potential to emit 821.89 tons per year of CO, 1,933.86 tons per year of NO<sub>x</sub>, 150.65 tons per year of  $PM_{10}$ , 2,206.5 tons per year of SO<sub>2</sub>, 541 tons per year of HCl, and 53.6 tons per year of HF. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, American Bituminous Power Partners, L.P.'s Grant Town Power 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:			
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		

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 Y	Standards of Performance for Coal Preparation Plants	
40 C.F.R 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing	
	Plants	
40 CFR Part 61, Subpart M	National Emission Standard for Asbestos	
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants:	
	Coal- and Oil-Fired Electric Utility Steam Generating Units	
40 CFR Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for	
	Stationary Reciprocating Internal Combustion Engines	
40 CFR Part 82, Subpart F	Ozone depleting substances	
40 CFR Part 97, Subpart AAAAA	CSAPR NO <sub>X</sub> Annual Trading Program	
40 CFR Part 97, Subpart CCCCC	CSAPR SO <sub>2</sub> Group 1 Trading Program	
40 CFR Part 97, Subpart EEEEE	CSAPR $NO_X$ Ozone Season Group 2 Trading Program	
WV Code § 22-5-4 (a)(15)	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	
	J	

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> )
R14-0005H	December 05, 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 January 28, 2020 and modified on April 6, 2021 and February 14, 2023. Substantial changes to the most recent version of the Title V Permit (i.e., R30-04900026-2020 (MM01)) consist of the following:

Note: <u>"CP" means current permit R30-04900026-2020 (MM01) and COA means citation of authority in</u> <u>the following discussion. The condition numbers in the following discussion reflect the renewal</u> <u>permit numbers unless designated with "CP."</u>

# 1) Title V Boilerplate changes

- **Condition 2.1.3.** Revised resulting from Rule 30 (45CSR30) revisions.
- Condition 2.15. This condition was inadvertently moved to condition 2.23. during a previous permit modification. Therefore, it has been relocated back to its original position in the renewal permit. The subsequent condition numbers have been corrected.
- **Condition 2.17.** Deleted and marked as reserved resulting from Rule 30 revisions.
- **Condition 3.1.6.** Revised the COA.
- Condition 3.3.1. 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." to the end of 3.3.1.b. Also revised the COA.
- **Condition 3.5.4.** Revised as revised in Rule 30.
- **Condition 3.5.7.** Deleted and marked as reserved resulting from Rule 30 revisions.
- **Condition 3.5.8.a.1.** Deleted and marked as reserved resulting from Rule 30 revisions.
- > Condition 3.5.8.a.2. Revised as revised in Rule 30.

#### 2) Section 1.1 – "Emission Units Table"

- Revised the description to add the word "Fluidized" for Emission Unit 2S.
- Revised the descriptions for Emission Unit 20S and Tank #4 as requested in the renewal application.
- Several emission units currently listed in the equipment table are no longer operational at the facility have been removed from the table as requested in the renewal application. The emission units removed include the following: 3S C, 18S A, 18S B, 18S C, 18S D, 18S F, 18S H, 18S I, 18S J, 4SB, Tank #1, Tank #2, Tank #3 and DFP.
- Emission Unit 18S G "Ro-Pro Reversible Hammermill" has been moved to the fuel prep building and reidentified as 4S H and renamed "Reversible Hammermill B" and therefore it has been relocated in the equipment table with the 4S equipment.

#### **3)** Section 4.0.

- Where applicable, in several permit conditions, updated the COA for 45CSR2 (Rule 2) section citations to the revised Rule 2 numbering.
- Condition 4.1.3. Added a footnote for the PM lb/MMBtu limit to indicate that this limit will be streamlined with the more stringent 40 CFR 63 Subpart UUUUU limit beginning on and after July 6, 2027.

- Condition 4.1.6. (CP) The requirement (45CSR§2-9.1.) from Rule 2 in this condition of the current permit has been deleted from Rule 2. Therefore, the requirement has been deleted in the renewal permit. The subsequent conditions in the renewal permit have been renumbered.
- Condition 4.1.8. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU. Also added PM streamlining language for condition 4.1.3.
- Condition 4.1.11.i. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.1.15. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU. Also updated the COA.
- Condition 4.2.4. This condition contained language to demonstrate compliance with the Condition 4.1.3. PM emission limitations by monitoring the baghouse system in accordance with the Baghouse Inspection & Maintenance Plan, dated June 24, 2002. This plan was developed as a result of a WVDAQ Consent Order when the units had failed a PM test in 2001. The Consent Order would terminate after the first three years from the effective date (August 6, 2002) that the Company operated continuously without a violation of the particulate matter emission limits set forth in R14-0005B. Subsequent PM tests from 2002, 2003, 2005, and 2006 indicated that the plant was in compliance with the PM limits thereby terminating the Consent Order. Although the Consent Order was terminated and the Consent Order requirements were removed from the Title V permit in 2009, the Baghouse Inspection & Maintenance Plan was retained in the Title V permit in Appendix C. The Plan was established prior to the promulgation of 40 CFR 63 Subpart UUUUU (MATs rule). Since the facility is subject to this subpart and the PM continuous compliance requirements are included in the Title V permit, American Bituminous Power Partners has requested the removal of the Baghouse Inspection and Maintenance Plan as a permit document in the interests of permit simplicity, operational flexibility, and permit streamlining considerations. The MATs rule in effect, makes the Baghouse Inspection & Maintenance Plan redundant and unnecessary. Given that the facility has continued to demonstrate compliance with the PM limits and the MATs rule requirements are included in the permit, this permit condition has been revised to state that the permittee shall comply with the applicable continuous compliance requirements of 40 CFR 63 Subpart UUUUU §§63.10020 - 63.10021 and through 40 CFR 63 Subpart UUUUU PM quarterly performance testing. Furthermore, "On or after July 6, 2027 compliance shall be demonstrated by PM CEMS in accordance with the following requirements of 40 CFR §63.10010(i)" was also added to this condition since Subpart UUUUU will require the use of a PM CEMS on July 6, 2027. Appendix C containing the Plan has been deleted from the permit.

In addition, the requirements of 40 CFR §63.10010(i) (i.e., requiring the use of a PM CEMS on or after July 6, 2027) have been added to this permit condition.

- Condition 4.2.10. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.2.12. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.3.2. Corrected the rule 40 CFR 60 Subpart Da rule citation in brackets from §60.51Da to §60.50Da.
- Condition 4.3.9. Updated the test performance date to June 8, 2022.
- Condition 4.3.11. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.3.15. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.3.19. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.3.24. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.

- Condition 4.4.4. (CP) The requirements in this condition of the current permit were for the records of monitored data established in the Baghouse Inspection and Maintenance Plan. Since the Plan has been removed from the permit, and the MATs rule record keeping requirements are contained in the permit, this condition has been deleted in the renewal permit. The subsequent conditions in the renewal permit have been renumbered.
- Condition 4.4.7. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.5.6. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Condition 4.5.9. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU. Also updated the COA.
- Condition 4.5.10. This condition was revised to only include the new requirement of 40 CFR §63.10031(b)(6) for submitting quarterly compliance reports after December 31, 2023 in accordance with 40 CFR §63.10031(g). The other requirements of §63.10031(b) are obsolete since the reporting periods are prior to January 1, 2024 and therefore have been deleted from the renewal permit. The COA has also been updated.
- Condition 4.5.11. Updated the language to the most recent version of 40 CFR 63 Subpart UUUUU.
- Conditions 4.5.12. 4.5.15., and 4.5.17. Similar to the revisions in condition 4.5.10., only the updated language to the most recent version of 40 CFR 63 Subpart UUUUU applicable on or after January 1, 2024 has been included in these permit conditions. The COAs have also been updated where appropriate.

#### 4) Section 5.0.

Condition 5.1.1. – Removed the "Ro-Pro" equipment that is no longer operational as described under Item 2 above. The footnotes have also been revised.

#### 5) Section 8.0.

- > Removed DFP from the Title since it is no longer operational as described under Item 2 above.
- ▷ Condition 8.1.1. Updated the language to the most recent version of 40 CFR 63 Subpart ZZZZ.
- Condition 8.1.5. Updated the language to the most recent version of 40 CFR 63 Subpart ZZZZ.
- Condition 8.4.1.b. Updated the language to the most recent version of 40 CFR 63 Subpart ZZZZ.

# 6) Appendix C (CP)

As discussed in Condition 4.2.4. under Item 3 above, the Baghouse Inspection & Maintenance Plan is redundant to the MATs Rule's continuous compliance requirements and therefore removed from the renewal permit. Appendix C has been deleted.

# **Non-Applicability Determinations**

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

a. 45CSR5 – To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas. According to 45CSR§§5-2.5.2. and 2.14., coal preparation plants and coal handling facilities subject to the requirements of 45CSR2 are not subject to the requirements of 45CSR5. Since the Fuel Group is subject to the fugitive particulate matter emission limitations of 45CSR§2-5.1., the requirements of 45CSR5 do not apply.

- b. 45CSR7 To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations. Per 45CSR§7-10.1., the requirements of 45CSR7 do not apply to particulate matter emissions regulated by 45CSR2. Since the Limestone Group is subject to the fugitive particulate matter emission limitations of 45CSR§2-5.1., the requirements of 45CSR7 do not apply.
- c. 45CSR33 Acid Rain Provision and Permits and the Acid Rain Program Requirements of 40 CFR 72, 73, 74, 76, 77, and 78. American Bituminous has the following type of unit specified under 40 CFR §72.6(b)(6) which is not an affected unit subject to the requirements of the Acid Rain Program: An independent power production facility that has, as of November 15, 1990, one or more qualifying power purchase commitments to sell at least 15 percent of its total planned net output capacity; and consists of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130 percent of its total planned net output capacity.
- d. 40 CFR 60, Subpart D Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971. Per 40 CFR §60.40(e), any facility covered under 40 CFR 60, Subpart Da is not covered under 40 CFR 60, Subpart D. Since the boilers are subject to 40 CFR 60, Subpart Da, they are not subject to 40 CFR 60, Subpart D.
- e. **40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.** Per 40 CFR §60.40b(e), any facility covered under 40 CFR 60, Subpart Da is not covered under 40 CFR 60, Subpart Db. Since the boilers are subject to 40 CFR 60, Subpart Da, they are not subject to 40 CFR 60, Subpart Db.
- f. 40 CFR 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. 40 CFR 60, Subpart Dc applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 MW (100 MMBTU/hr) or less, but greater than or equal to 2.9 MW (10 MMBTU/hr). Since both boilers have a maximum design heat input of 551.9 MMBTU/hr, they are not subject to the requirements of 40 CFR 60, Subpart Dc.
- g. 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. 40 CFR 60, Subpart K applies to petroleum liquid storage tanks constructed between June 11, 1973 and May 19, 1978 with a storage capacity greater than 40,000 gallons. This facility has no petroleum liquid storage tanks meeting the applicability requirements of this rule.
- h. 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. 40 CFR 60, Subpart Ka applies to petroleum liquid storage tanks constructed between May 18, 1978 and July 23, 1984 with a storage capacity greater than 40,000 gallons. This facility has no petroleum liquid storage tanks meeting the applicability requirements of this rule.
- i. 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 and On or Before October 4, 2023. 40 CFR 60, Subpart Kb applies to volatile organic liquid storage tanks constructed after July 23, 1984 and on or before October 4, 2023 with a storage capacity greater than or equal to 75 m<sup>3</sup> (19,812 gallons). All volatile organic liquid storage tanks at this facility have a storage capacity of less than 75 m<sup>3</sup> (19,812 gallons).

- j. **40 CFR 60, Subpart Kc Standards of Performance for Volatile Organic Liquid Storage Vessels** (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After October **4, 2023** 40 CFR 60, Subpart Kc applies to volatile organic liquid storage tanks constructed after October **4, 2023** with a storage capacity greater than or equal to 20,000 gallons (75.7 m<sup>3</sup>). There are no volatile organic liquid storage tanks at this facility for which construction, reconstruction, or modification has commenced after October **4,** 2023.
- k. 40 CFR 63, Subpart Q National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers. Per 40 CFR §63.400(a), 40 CFR 63, Subpart Q only applies to cooling towers operated with chromium-based water treatment chemicals. American Bituminous does not use chromiumbased water treatment chemicals, so this rule does not apply.

## **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:February 12, 2025Ending Date:March 14, 2025

## **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 57<sup>th</sup> 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.