West Virginia Department of Environmental Protection Division of Air Quality





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

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on January 28, 2020.

Permit Number: **R30-04900026-2020** Application Received: **January 7, 2020** 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** 

Permit Action Number: *SM01* Revised: *April 6, 2021* 

Physical Location:Grant Town, Marion County, West VirginiaUTM Coordinates:572.40 km Easting • 4379.25 km Northing • Zone 17Directions:From Fairmont take US Route 19 north to Rivesville. Tum left onto<br/>County Route 17. Follow CR 17 approximately 4 miles to plant entrance<br/>on the right.

#### **Facility Description**

American Bituminous Power Partners L.P.'s (AmBit) Grant Town Power Plant is an electric generation facility firing eastern bituminous coal-refuse with a total output of 80 MWe and operates under SIC 4911 and NAICS 221112. 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.

# **Emissions Summary**

This modification results in an increase of  $SO_2$  potential emissions (PTE) of 211.88 tons/year thereby increasing the PTE from 1,994.62 to 2,206.5 tons per year.

# **Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility maintains the potential to emit 821.89 tons per year of CO, 1,933.86 tons per year of  $NO_x$ , 159.3 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, AmBit 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:			
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		
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		
40 C.F.R 60, Subpart Da	Standards of Performance for Electric Utility Steam		
	Generating Units		
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants:		
	Coal- and Oil-Fired Electric Utility Steam Generating Units		
State Only:			
45CSR4	None		

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

The active permits/consent orders affected by this modification are as follows:

Permit or	Date of	Permit Determinations or Amendments That
Consent Order Number	Issuance	Affect the Permit <i>(if any)</i>
R14-0005G	January 21, 2021	

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 Significant Modification incorporates the R14-0005G modification to increase short-term and annual SO<sub>2</sub> limit. Removal of this limit retroactively subjected the facility to the SO<sub>2</sub> Data Requirements Rule (DRR). A Prevention of Significant Deterioration (PSD) Applicability Analysis was required as well as a DRR modeling demonstration prior to issuance of R14-0005G.

- R14-0005G included the addition of 40 CFR 63 Subpart UUUUU in condition B.1. Also, a permit condition containing 40 CFR 63 Subpart UUUUU language was added under "Other Requirements" as condition B.8. in R14-0005G. The old B.8. was renumbered as B.9. and likewise, the subsequent conditions were renumbered. These changes are reflected in the Title V permit. Due to a typographical error in R14-0005G, the last four conditions under "Other Requirements" were not renumbered resulting in two "B.19." permit conditions. Therefore, two of the conditions (4.3.6. and 4.3.7.) in the Title V permit contain B.19. in the citation of authority, the requirements however are different and reflect each of the B.19. requirements in R14-0005G.
- Although not part of the Significant Modification application, the revised language and requirements of 40 CFR 63 Subpart UUUUU pertaining to the creation of a new subcategory for "Eastern Bituminous Coal Refuse (EBCR)-fired unit" has also been included in the Title V permit.

Below are the substantial revisions made to R30-04900026-2020 resulting from the incorporation of R14-0005G and the revised Subpart UUUUU:

- 1) Condition 4.1.3.a.
  - Added maximum design heat input limits for the circulating fluidized bed boilers to the introductory requirement language.
  - Revised the SO<sub>2</sub> limits in the table.
  - Revised language in footnote 1.
  - Revised Fluorides footnote number from 2 to 3 to match R14-0005G. The applicable footnote was inadvertently changed during the last renewal process.
- **2)** Condition 4.1.3.b.
  - Revised the SO<sub>2</sub> limits in the table.
  - Added a footnote for the lb/mmBtu limit to indicate that the limit is based on the maximum allowable 30-Day Rolling Average under 40 CFR 63 Subpart UUUUU. Also added "40 CFR §63.9991(a)(1), Table 2, Item #7.b." to the citation of authority.
  - Deleted 40 CFR 60 Subpart Da SO<sub>2</sub> streamlining language. (*Refer to the discussion below regarding Subpart Da*)
  - Deleted "60.43Da(a)(1), 60.43Da(g)" from the citation of authority.
- **3)** Condition 4.1.4.
  - Revised the SO<sub>2</sub> limit and the reduction efficiency in the table.

- Revised the language after the table.
- Deleted 40 CFR 60 Subpart Da SO<sub>2</sub> streamlining language. (*Refer to the discussion below regarding Subpart Da*)
- Added §60.43Da(j)(3)(iii) language for the 30-day rolling average basis.
- Added 60.48Da(e) language regarding compliance with the applicable SO<sub>2</sub> percentage reduction requirements.
- Revised the citation of authority to reflect that this requirement was moved from A.9. to A.1.c. in R14-0005G and to reflect the change in the requirement in Subpart Da from §60.43Da(a) to §60.43Da(j)(3)(iii) and to add §60.48Da(e). Also added Subpart
- 4) Condition 4.1.8. Added SO<sub>2</sub> requirement from §60.48Da(a)
- 5) Conditions 4.1.9., 4.1.10. and 4.1.11. Replaced "coal-fired unit not low rank virgin coal" with "Eastern Bituminous Coal Refuse (EBCR)-fired unit" as amended in 40 CFR 63 Subpart UUUUU. Also, revised the SO<sub>2</sub> emission limit in condition 4.1.10. from 0.20 to 0.60 lb/MMBtu as amended in Subpart UUUUU.
- 6) Section 4.2 Since the requirement to install, calibrate, certify, operate, maintain, and record the output from continuous monitoring systems as specified in 40 CFR §60.49Da is already in the Title V permit under condition 4.2.1., no additional requirements from 40 CFR §60.49Da have been added to the permit except for 40 CFR §60.49Da(f)(2) which specifies requirements for units that began modifications after February 28, 2005. The requirements of §60.49Da(f)(2) have been added as Condition 4.2.14.
- 7) Condition 4.3.2. Added the term "Subpart Da" in the requirement text as written in R14-0005G. Also added "[i.e., 40 CFR §60.51Da(b)]" for clarity and added "45CSR16; 40 CFR §60.50Da(b)" to the citation of authority.
- 8) Condition 4.3.3. Added the term "Subpart Da" in the requirement text as written in R14-0005G. Also, revised the continuous SO<sub>2</sub> emission rate in from 0.41 to 0.60 lb/mmBtu as amended in R14-0005G.
- 9) Conditions 4.3.25. through 4.3.28. Added 40 CFR 60 Subpart Da SO<sub>2</sub> testing requirements.
- 10) Conditions 4.5.18. through 4.5.22 and 4.5.24. Added 40 CFR 60 Subpart Da SO<sub>2</sub> reporting requirements.
- 11) Condition 4.5.23. Added 40 CFR 60 Subpart Da opacity reporting requirements that were not previously included in the permit.
- 12) Since R14-0005G added 40 CFR 63 Subpart UUUUU to conditions B.1. and B.8. (see discussion above), all the citations of authority in the Title V conditions in Section 4.0 of the permit that contain requirements from Subpart UUUUU conditions have been revised to add "45CSR14, R14-0005, B.1. and B.8."
- 13) Section 4.6. Although not part of the Significant Modification application, this section contained a compliance plan with requirements taken from "Compliance Order on Consent AED-CAA-113(a)-2019-0001" relating to 40 CFR 63 Subpart UUUUU SO<sub>2</sub> emissions. Section I, Paragraph 50 of the Order contains termination language in which if any "on the earlier" of the four conditions listed are met, the Order shall terminate. At least one of these conditions has been triggered (i.e., 11:59 pm April 15, 2020). Since the requirements in this section of the Title V permit are no longer applicable requirements, they have been deleted. The requirements in Condition 4.6.1. have been replaced with the word "None."
- 40 CFR 60, Subpart Da: Standards of Performance for Electric Utility Steam Generating Units

Subpart Da of 40 CFR 60 is the federal NSPS for "electric utility steam generating units" that are capable of combusting more than 250 million mmBtu/hr heat input of fossil fuel (either alone or in

combination with any other fuel) and for which construction, modification, or reconstruction is commenced after September 18, 1978. Subpart Da contains within it emission standards, compliance methods, monitoring requirements, and reporting and record-keeping procedures for affected facilities applicable to the rule. Subpart Da defines an "Electric Utility Steam Generating Unit" as "any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale." The Grant Town Power Station meets this definition and is, therefore, subject to the applicable requirements given under Subpart Da.

Based on the proposed changes meeting the definition of "modification" under 60.2 and the statutory language given under 60.14(a), the proposed increase in SO<sub>2</sub> emissions from the Boilers will trigger the modification requirements under Subpart Da for SO<sub>2</sub> only. The Subpart Da standards for NOx and particulate matter will not change as a result of the proposed increase in SO<sub>2</sub> emissions. The SO<sub>2</sub> emission standards that will now apply to the boilers are given under 60.43Da(j):

On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification commenced after February 28, 2005, and that burns 75 percent or more (by heat input) coal refuse on a 12-month rolling average basis, shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the applicable emission limitation specified in paragraphs (j)(1) through (3) of §60.43Da(j).

- (3) For an affected facility for which modification commenced after February 28, 2005, any gases that contain SO<sub>2</sub> in excess of either:
  - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis;
  - (ii) 65 ng/J (0.15 lb/MMBtu) heat input on a 30-day rolling average basis; or
  - (iii) 10 percent of the potential combustion concentration (90 percent reduction) on a 30-day rolling average basis.

Based on the purpose of the R14-0005G permitting action to authorize AmBit to increase the 30-day rolling average SO<sub>2</sub> emission rate to meet the relaxed limit under 40 CFR 63, Subpart UUUUU (0.6 mmBtu), AmBit will show compliance with (iii) above by meeting the 90 percent reduction requirement option. As a new standard has been triggered, performance testing shall be required under §60.8 and, pursuant to §60.49Da(b), continuous emissions monitoring systems (CEMS) are required to show continuing compliance with SO<sub>2</sub> standards.

# 40 CFR 63, Subpart UUUUU: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

40 CFR 63, Subpart UUUUU - also known as the Mercury and Air Toxics Standards (MATS) - establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from coal-fired and oil-fired EGUs. Relevant to the proposed changes in R14-0005G, on April 15, 2020, EPA established a new subcategory for certain existing power plants that fire a specific type of "coal refuse." The subcategory is for certain existing EGUs firing eastern bituminous coal refuse (EBCR) and affects six existing EGUs that fire EBCR including the Grant Town Power Station. The result of the new subcategory is to increase the SO<sub>2</sub> emission limit for EGUs that combust EBCR - including Grant Town - from 0.2 lb/mmBtu to 0.6 lb/mmBtu. The new limitation is given under Table 2 of the Subpart UUUUU and is referenced under §63.9991(a)(1). There were no other substantive changes to the Subpart UUUUU, and the remaining requirements are still in effect.

#### **Non-Applicability Determinations**

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

None.

# **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 19, 2021
Ending Date:	March 22, 2021

# **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 304/926-0499 ext. 41910 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.