

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-05300009-2025**

Application Received: **July 26, 2024**

Plant Identification Number: **03-54-053-00009**

Permittee: **Appalachian Power Company (d.b.a. American Electric Power)**

Facility Name: **Mountaineer Plant**

Mailing Address: **1 Riverside Plaza, Columbus, OH 43215**

Physical Location:	New Haven, Mason County, West Virginia
UTM Coordinates:	419.04 km Easting • 4314.70 km Northing • Zone 17
Directions:	From Charleston take Interstate 77 North to Exit 138. Travel west on Route 62 approximately 24 miles to New Haven. The facility is located on the right one mile east of New Haven in Mason County.

Facility Description

The Mountaineer Plant is a fossil fuel fired electric generation facility and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of one (1) coal-fired steam generator with a rated design capacity of 11,960 mmBtu/hr, two (2) oil-fired auxiliary boilers with a rated design capacity of 598 mmBtu/hr each, various supporting operations such as coal handling, ash handling, limestone handling and gypsum handling systems, as well as various tanks with insignificant emissions. The facility also has two (2) Emergency generators rated at 3003 bhp each and two (2) emergency fire pumps rated at 308 bhp each. 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

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2023 Actual Emissions
Carbon Monoxide (CO)	1,897	518
Nitrogen Oxides (NO _x)	46,168	2,650
Particulate Matter (PM _{2.5})	2,348	33
Particulate Matter (PM ₁₀)	3,205	135
Total Particulate Matter (TSP)	6,255	347
Sulfur Dioxide (SO ₂)	79,294	2,806
Volatile Organic Compounds (VOC)	225	62
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2023 Actual Emissions
Arsenic	1.93	<0.01
Beryllium	0.11	<0.01
Chromium	1.81	0.05
Cobalt	0.55	0.01
Manganese	2.19	0.05
Mercury	0.32	0.01
Nickel	1.57	0.06
Selenium	4.95	0.68
Hydrochloric Acid	4,562	5.64
Hydrofluoric Acid	570	5.19

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

Title V Program Applicability Basis

This facility has the potential to emit 79,294 tons per year of SO₂, 46,168 tons per year of NO_x, 3,205 tons per year of PM₁₀, 1,897 tons per year of CO, 225 tons per year of VOC, more than 10 tons per year of a single hazardous air pollutant (HAP), and more than 25 tons per year of aggregate HAPs. 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, Appalachian Power Company's Mountaineer 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
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
45CSR33	Acid Rain Provisions And 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 CFR 60, Subpart D	Standards of performance for Fossil Fuel Fired Steam Generators
40 CFR§60.13(i)(2)	Letter of approval to AEP dated June 9, 1999 for Alternative Monitoring Request
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 C.F.R. 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. Part 61, Subpart M	National Emission Standard For Asbestos
40 C.F.R. 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 C.F.R. Part 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil- Fired Electric Utility Steam Generating Units
40 C.F.R. Part 64	Compliance Assurance Monitoring
40 C.F.R. Part 72	Permits Regulation
40 C.F.R. Part 73	Sulfur Dioxide Allowance System
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 Emission 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 _x Annual Trading Program
40 C.F.R. Part 97, Subpart CCCCC	CSAPR SO ₂ 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

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>)
R13-0075J	04/08/2021	
G60-C062	08/19/2014	

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 March 10, 2020, and modified on July 9, 2021. Substantial changes to the most recent version of the current Title V Permit (R30-05300009-2020 (MM01)) consist of the following:

Note: COA means citation of authority in the following discussion. The condition numbers in the following discussion reflect the renewal permit numbers unless designated with "CP" which means current permit R30-05300009-2020 (MM01).

1) Title V Boilerplate changes.

- **Condition 2.1.3.** – Revised resulting from Rule 30 (45CSR30) revisions.
- **Condition 2.11.4.** – The COA has been corrected.
- **Condition 2.17.** – Deleted and marked as reserved resulting from Rule 30 revisions.
- **Condition 2.22.1.** – The COA has been updated to remove 45CSR38 which has been repealed.
- **Condition 3.1.5. (CP)** – This condition was marked as "Reserved" resulting from a previous boilerplate revision and therefore it has been deleted. Subsequent conditions have been renumbered (e.g., 3.1.6. is 3.1.5. in the renewal permit).
- **Condition 3.1.6. (3.1.7. CP)** – Revised the COA 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.”
- **Condition 3.3.1.** – Revised the COA to the current version of the WV Code.
- **Condition 3.5.3.** – This condition was revised to update the US EPA mailing address.
- **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

- Added Emergency Quench Pump (4S) – This pump was removed in a previous renewal. However, it is contained in permit R13-0075J with applicable requirements. Therefore, it has been added back into this renewal permit.

The following changes have been made as shown/requested in the Title V renewal application:

- Revised the Design Capacity for CSA-1 and CSA-2 Coal Storage Areas #1 and #2 from 42 to 21 acres (each).
- Corrected a typographical error in the “Emission Unit ID” and the “Emission Point ID” columns for the “Reclaim Hoppers/Feeders” from F7S-1 through F& S-10 to F7S-1 through F7S-10.
- Revised the “Flyash Rotary Unloaders” row as shown below. Deletions are shown in red strikethrough, and additions are shown in blue underline.

1 through 6 16 <u>/ Pin Mixers 1</u> <u>through 5</u>	1 through 6 16 <u>/ Pin</u> <u>Mixers 1</u> <u>through 5</u>	Fly Ash Rotary Unloaders <u>/Unloading Pin</u> <u>Mixers</u>	1974 <u>/</u> <u>2016</u>	300 TPH (ea.) <u>/ 600</u> <u>TPH (ea.)</u>	MC
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- Revised the “Year Installed” dates for Tanks #17, #18, #19, #27, #48, #70, #82 and #83.
- Deleted Tank #57 which was the same piece of equipment as Tank #59.
- Added “(8S)” to the “Emission Unit ID” column for Tank #58.
- Added “(10S or 11S)” to the “Emission Unit ID” column for Tank #59 and revised the emission unit description by deleting the word “Storage” and adding “or Hydrated Lime”.
- Deleted Tank #61 which was removed from the site in 2022.
- Revised the “Emission Unit ID” column to delete “12S” and to add “14S” for Tank #62.
- Revised the “Emission Unit ID” column to delete “12S” and to add “13S” for Tank #63.
- Revised the “Design Capacity” column to add the word “Tote” for Tank #72.
- Revised the design capacity for Tank #77 from 250 gallons to 330 gallons.

- Revised the emission unit description by deleting “Bottom Ash” and adding “Water Treatment” for Tanks #80 and #81. Also revised the “Year Installed” dates.

3) Section 3.0

- Conditions 3.1.5.* (CP), 3.1.10. (CP) and 3.1.11. (CP) – These conditions were marked as “Reserved” and therefore they have been deleted. Subsequent conditions have been renumbered. (*see “Title V Boilerplate changes.” above.)
- Condition 3.1.11. (3.1.14. CP) - Since a “stay” of 40 CFR 97 Subpart GGGGG is currently in effect for West Virginia, West Virginia sources remain subject to the Group 2 Ozone Season Trading Program (40 CFR 97 Subpart EEEEE). Therefore, “Group3” has been replaced with “Group 2.” 40 CFR §97.1006 has been replaced with 40 CFR §97.806 in the COA and since 45CSR43 adopts by reference, 40 CFR 97 Subpart EEEEE, 45CSR43 has been added in the COA. Furthermore, the Group 3 requirements have been replaced with the Group 2 requirements in Appendix B.

4) 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 4.0.1. (CP) – The requirement of 45CSR§§2-9.1. and 10.1 have been deleted from Rule 2 and therefore deleted in the renewal permit. The subsequent condition in the renewal permit has been renumbered.
- Conditions 4.1.4 (CP) and 4.1.16 (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
- Conditions 4.1.4.b., 4.1.30.i., 4.1.31., 4.1.35., 4.2.16., 4.2.17., 4.2.19., 4.3.6., 4.3.15., 4.4.11., 4.5.11., 4.5.13., 4.5.14., 4.5.15. and 4.1.16. - Updated the language in these conditions to reflect the revised requirements in the current version of 40 CFR 63 Subpart UUUUU. Where appropriate, the COAs have also been revised.
 - Condition 4.1.31. (4.1.35. CP)) – Since after January 2, 2025, the option to use the Paragraph 2 definition for “Startup” is no longer an option, the language of this condition has been modified for clarity.
 - Condition 4.5.13. Pursuant to 40 CFR §63.10031(b)(6), the final semiannual compliance report shall cover the reporting period from July 1, 2023, through December 31, 2023. Thereafter, quarterly compliance reports in accordance with 40 CFR §63.10031(g) are to be submitted starting with the first calendar quarter of 2024. Therefore, the semi-annual reporting requirements have been removed.
- Condition 4.1.6. – Corrected a typographical error by revising the Steam Generator #1 ID from #15 to #1S.
- Condition 4.1.20 (CP 4.1.22) – Renumbered the Rule 10 section referenced in this condition from “45CSR§10-3.3.f” to the current section numbering of “45CSR§10-3.3.6.”
- Condition 4.1.25. – The requirements from permit R13-0075J for the emergency quench pump (4S) have been added in this condition. This requirement was removed in a previous renewal. However, since the requirement remains in R13-0075J it has been added to this renewal permit.
- Conditions 4.1.28. (CP) and 4.1.29. (CP) – These conditions were marked as “Reserved” and therefore have been deleted from the renewal permit. The subsequent conditions have been renumbered.
- Condition 4.3.1. – Updated the language to include the date of the most recent PM compliance testing.
- Condition 4.4.9. – Added the 40 CFR §63.7555(a)(3) language which had been previously omitted.

- Condition 4.5.10. - Updated the language to reflect the revised requirements in the current version of 40 CFR 63 Subpart DDDDD and revised the COA. Added requirements of 40 CFR §63.7550(c)(5)(xvii) to 4.5.10.a. which had been inadvertently omitted. Added the optional requirements of 40 CFR §63.7550(b)(5) to 4.5.10.b. for submitting reports according to condition 3.5.6. Added 4.5.10.c for the requirements from 40 CFR 63 Table 9 Item #1.c.

5) Section 5.0

- Revised the section title emission point IDs for clarity.

6) Section 6.0

- Revised the section title to add the emission point IDs.

7) Section 8.0

- Conditions 8.1.1., 8.1.2., 8.2.2., 8.3.1. and 8.5.1. - Updated the language in these conditions to reflect the revised requirements in the current version of 40 CFR 60 Subpart IIII. Where appropriate, the COAs have also been revised.
- Condition 8.1.1. – Deleted the footnotes 1 and 2 since these footnotes do not pertain to the table in this condition.
- Condition 8.2.1. – Since neither of the emergency fire pump engines are equipped with diesel particulate filters, the 40 CFR §60.4209(b) requirements have been deleted. The COA has also been revised to reflect this change.
- Condition 8.4.1. – Since neither of the emergency fire pump engines are equipped with diesel particulate filters, the 40 CFR §60.4214(c) requirements have been deleted. The COA has also been revised to reflect this change.

8) Section 9.0

- Pursuant to 40 CFR §63.6590(b)(1)(i), since the emergency generator diesel engines are new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, they are not subject to 40 CFR 63 Subpart ZZZZ or 40 CFR 63 Subpart A except for the initial notification requirements of 40 CFR §63.6645(f). Therefore, the Subpart ZZZZ requirements (conditions of the CP 9.1.7, 9.1.8, 9.1.9 and 9.5.3) except for §63.6645(f), have been removed from the permit. The subsequent conditions to those that have been deleted were renumbered in the renewal permit.
- Conditions 9.1.9, 9.2.2., 9.3.2. and 9.5.3. - Updated the language in these conditions to reflect the revised requirements in the current version of 40 CFR 60 Subpart IIII. Where appropriate, the COAs have also been revised.

9) Appendix B

- Revised the layout for the CSAPR monitoring requirements table to match the WVDAQ CSAPR requirements boilerplate.
- Replaced the CSAPR NO_x Ozone Season Group 3 Trading Program Requirements (40 CFR §97.1006) with the CSAPR NO_x Ozone Season Group 2 Trading Program Requirements (40 CFR §97.806). (*see discussion in Item 3 above*)

10) Appendix C

- Replaced the expired Acid Rain Permit with the current Acid Rain Permit.

Non-Applicability Determinations

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

40 CFR 63 Subpart Q	The Mountaineer Plant cooling tower does not use chromium-based water treatment chemicals.
40 CFR 60 Subpart Da	The Mountaineer Plant electric utility steam generating unit commenced construction prior to September 18, 1978 and has not undergone a “modification” as defined in 40 CFR 60.
40 CFR 60 Subpart K, Ka	There are no tanks containing “Petroleum Liquids” that are greater than 40,000 gallons in capacity.
40 CFR 60 Subpart Kb	All tanks storing volatile organic liquids are below 19,812 gallons in capacity.
40 CFR 60 Subpart Y	All other sections of the existing conveyor system except Conveyor M5 are not Subpart Y facilities per §60.250(b) because they were constructed before October 24, 1974.
40 CFR 60 Subpart OOO	The equipment making up source (5S) is not subject to 40 CFR Part 60 Subpart OOO since there is no processing of the limestone in the equipment from the barge unloader to the storage pile.
45CSR5	Pursuant to 45CSR5, if 45CSR2 is applicable to the facility, then the facility is exempt from 45CSR5. 45CSR2 is applicable to the facility.
45CSR17	Pursuant to 45CSR17, if 45CSR2 is applicable to the facility, then the facility is exempt from 45CSR17. 45CSR2 is applicable to the facility.

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: May 30, 2025

Ending Date: June 30, 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 57th 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.