

Fact Sheet



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

Permit Number: **R30-05100005-2025**

Application Received: **May 9, 2024**

Plant Identification Number: **03-054-05100005**

Permittee: **Kentucky Power Company**

Facility Name: **Mitchell Plant**

Mailing Address: **1 Riverside Plaza, Columbus, Ohio 43215-2373**

Physical Location:	Cresap/Moundsville, Marshall County, West Virginia
UTM Coordinates:	516.00 km Easting • 4409.00 km Northing • Zone 17
Directions:	From Charleston take Interstate 77 North to Exit 179. Travel north on US Route 2 approximately 70 miles to Cresap. Facility is located on Route 2 approximately nine (9) miles south of Moundsville, WV.

Facility Description

The Mitchell Plant is a fossil fuel fired electric generation facility and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of two (2) coal-fired steam generators with a rated design capacity of 7,020 mmBtu/hr each, one (1) oil-fired auxiliary boiler with a rated design capacity of 663 mmBtu/hr, one diesel emergency generator rated for 3,717 hp, one diesel emergency generator rated for 3,004 hp, one diesel emergency generator rated for 464 hp and various supporting operations such as coal and ash handling, limestone handling, and various tanks with insignificant emissions. 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.

This renewal permit also incorporates minor modifications R30-05100005-2019 MM02, MM03 and MM04. The purpose of minor modification MM02 is to add a 2023 Cummins QSG12 513 hp diesel emergency generator LF DEG2 and a 600 gallon diesel fuel storage tank LF DEGT2. The purpose of minor modification MM03 is to replace the existing 1971 230 hp diesel emergency generator 17S with a 2023 Cummins CFP7E-F60 249 hp Tier 3 diesel emergency generator and replace the existing 275 gallon diesel fuel tank #28 with a new 300 gallon diesel fuel tank. The purpose of MM04 is to replace the existing 1971 230 hp diesel emergency generator 18S with a 2024 Cummins CFP9E-F10 275 hp Tier 3 diesel emergency generator and replace the existing 275 gallon diesel fuel tank #29 with a new 300 gallon diesel fuel tank.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions ¹	2023 Actual Emissions ²
Carbon Monoxide (CO)	4,743.23	365.41
Nitrogen Oxides (NO _x)	36,332.05	1,587.76
Particulate Matter (PM _{2.5})	1,096.2	21.94
Particulate Matter (PM ₁₀)	3,169.0	47.69
Total Particulate Matter (TSP)	5,423.79	134.40
Sulfur Dioxide (SO ₂)	89,743.04	1193.52
Volatile Organic Compounds (VOC)	559.82	43.30
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants ³	Potential Emissions ¹	2023 Actual Emissions ²
Hydrogen Chloride	12,337	6.54
Hydrogen Fluoride	1,071	5.98
Selenium	48.45	0.48
Manganese	3.77	0.04
Nickel	1.69	0.04
Arsenic	5.62	0.02
Mercury compounds	2.13	0.01
Beryllium	13.37	0.01
Chromium	2.00	0.04
Cobalt	0.74	0.01
Lead	3.65	0.02

¹ The potential emissions are from the renewal application.

² Actual emissions are from the State and Local Emission Inventory System (SLEIS) Summary Report Total Emissions by Source.

³ Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 4,743.23 tpy of CO; 36,332.05 tpy of NO_x; 3,169.0 tpy of PM₁₀; 89,743.04 tpy of SO₂; 559.82 tpy of VOC; 12,337 tpy of HCl; 1,071 tpy of HF; 48.45 tpy of Selenium; and 13.37 tpy of Beryllium. 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, Kentucky Power Company's Mitchell 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	Control of particulate matter emissions from indirect heat exchangers
	45CSR2A	Testing and MRR requirements under 45CSR2
	45CSR6	Open burning prohibited.
	45CSR10	Control of sulfur dioxide emissions from indirect heat exchangers
	45CSR10A	Testing and MRR requirements under 45CSR10
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for construction/modification
	45CSR16	Standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60
	WV Code § 22-5-4 (a) (15)	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 Standards for HAPs for Source Categories Pursuant to 40 C.F.R. Parts 61 and 63
	45CSR43	Cross-State Air Pollution Rule
	40 C.F.R. Part 60 Subpart Db	Standards of Performance for Industrial–Commercial-Institutional Steam Generating Units
	40 C.F.R. Part 60 Subpart OOO	NSPS for Non-metallic mineral processing plants
	40 C.F.R. Part 60 Subpart IIII	NSPS for Compression Ignition IC Engines
	40 C.F.R. Part 60 Subpart JJJJ	NSPS for Spark Ignition IC Engines
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63 Subpart ZZZZ	RICE MACT
	40 C.F.R. Part 63 Subpart DDDDD	Boiler MACT for Major Sources of HAP
	40 C.F.R. Part 63 Subpart UUUUU	Utility Mercury and Air Toxics (MATS) MACT
	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 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	Nitrogen Oxides 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 CFR Part 97, Subpart AAAAA	CSAPR NO _x Annual Trading Program
	40 CFR Part 97, Subpart EEEEE	CSAPR NO _x Ozone Season Group 2 Trading Program
	40 CFR Part 97, Subpart CCCCC	CSAPR SO ₂ Group 1 Trading Program
State Only:	45CSR4	No objectionable odors.

WVDAQ Letter dated September 3, 2002 addressed to Mr. Greg Wooten and signed by Jesse D. Adkins regarding the thermal decomposition of boiler cleaning solutions.

WVDAQ Letter dated January 21, 2004 addressed to Mr. Frank Blake and signed by Jesse D. Adkins regarding the combustion of demineralizer resins.

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>)
R13-2608E	May 12, 2014	
G60-C057A	August 8, 2014	
Phase II Acid Rain Permit # R33-3948-2027-6	December 19, 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 the fourth renewal of the Title V Permit. This renewal permit also incorporates minor modifications R30-05100005-2019 MM02, MM03 and MM04. The purpose of minor modification MM02 is to add a 2023 Cummins QSG12 513 hp diesel emergency generator LF DEG2 and a 600 gallon diesel fuel storage tank LF DEGT2. The purpose of minor modification MM03 is to replace the existing 1971 230 hp diesel emergency generator 17S with a 2023 Cummins CFP7E-F60 249 hp Tier 3 diesel emergency generator and replace the existing 275 gallon diesel fuel tank #28 with a new 300 gallon diesel fuel tank. The purpose of MM04 is to replace the existing 1971 230 hp diesel emergency generator 18S with a 2024 Cummins CFP9E-F10 275 hp Tier 3 diesel emergency generator and replace the existing 275 gallon diesel fuel tank #29 with a new 300 gallon diesel fuel tank.

The following changes have occurred since the most recent Title V permit was issued:

Title V Permit Boilerplate changes:

- **Condition 2.1.3.** – This condition was updated to delete the word “such” which was removed from 45CSR30 effective March 31, 2023. The citation was changed from “45CSR§30-2.12” to “45CSR§30-2.39” because the definition of “Secretary” was renumbered from a previous version of 45CSR30.
- **Condition 2.11.4** – The citation was changed from “45CSR§30-2.39” to “45CSR§30-2.40” because it was renumbered from a previous version of 45CSR30.
- **Conditions 2.17., 3.5.7. and 3.5.8.a.1.** – These conditions were deleted and replaced with “Reserved” because the emergency provisions under 45CSR§30-5.7 were removed from 45CSR30 effective March 31, 2023.

- **Condition 2.22.1** – “45CSR38” was removed from the citation because this rule has been repealed.
- **Conditions 3.1.6. and 3.3.1.** – The citation was revised to refer to the current version of the WV Code.
- **Condition 3.3.1.b.** – This condition was updated to include the following additional language: “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 3.5.3.** – This condition was updated to include the current EPA mailing address.
- **Condition 3.5.4.** – This condition was updated because the requirement to submit a certified emissions statement was removed from 45CSR30 effective March 31, 2023.
- **Condition 3.5.8.a.2.** – This condition was updated to replace the word “telefax” with “email” according to the change in 45CSR30 effective March 31, 2023.

Updated Permit Language Due to Rule/Regulation Language Changes:

- **Conditions 4.0.1., 4.1.3., and 5.1.1.** – These conditions were deleted because they were deleted in 45CSR2 and 45CSR10.
- **Conditions 4.1.4.a., 4.1.5.a., 4.2.1., 4.2.3., 4.4.1., 4.4.2., 4.5.2. through 4.5.4. 5.1.3., 5.2.2. through 5.2.5., 5.4.1., 5.4.2., 5.5.1 through 5.5.3., and 5.5.6.** – The citations were revised based on revised numbering in 45CSR2 and 45CSR10.
- **Conditions 4.1.4.b., 4.1.9., 4.1.10.a., 4.1.11., 4.1.14., 4.2.12., 4.2.13., 4.2.15., 4.3.3., 4.3.12., 4.3.17. 4.4.6., 4.5.7. through 4.5.9, 4.5.10. through 4.5.13** – These conditions were amended to match the revised 40 CFR 63 Subpart UUUUU.
- **Conditions 7.1.2., 7.1.6., 7.1.7., 7.4.2.** – These conditions were amended to match the revised 40 CFR 63 Subpart ZZZZ.
- **Conditions 8.1.5., 8.1.7. through 8.1.9. and 8.5.7.** – These conditions were amended to match the revised 40 CFR 60 Subpart IIII.
- **Conditions 8.1.13., 8.1.15., 8.4.6.(3) and 8.5.1.** – These conditions were amended to match the revised 40 CFR 60 Subpart JJJJ.
- **Conditions 8.5.2. through 8.5.6.** – These new conditions were added to match the revised 40 CFR 60 Subpart JJJJ.
- **Conditions 8.5.8. through 8.5.12.** – These new conditions were added to match the revised 40 CFR 60 Subpart IIII.

Changes requested in minor modification application R30-05100005-2019 MM02:

- **Condition 1.1** – The Emission Units table was amended to add an entry for LF DEG2 and LF DEGT2.
- **Condition 8.0** – Diesel Driven Emergency Fire Pump Engine LF DEG2 was added to the list of emission units and emission point IDs in the title section.
- **Conditions 8.1.5. through 8.1.9., 8.2.1., 8.4.4., 8.5.7.** – LF DEG2 was added to the citation section of these existing conditions.

- **Condition 8.1.15.** – This requirement from 45 CSR 63 Subpart ZZZZ was added for LF DEG2.
- **Conditions 8.5.8. through 8.5.12.** – New requirements from the revised Subpart IIII were added for LF DEG2.

Changes requested in minor modification application R30-05100005-2019 MM03:

- **Condition 1.1** – The Emission Units table was amended to modify the entry for 17S to include the information for the new diesel emergency engine.
- **Condition 7.0.** – The references to Emergency Diesel Driven Fire Pumps 17S and 18S were removed because the new replacement engines were moved to Section 8.0.
- **Condition 8.0** – Diesel Driven Emergency Fire Pump Engines 17E and 18E were added to the list of emission units and emission point IDs in the title section.
- **Condition 8.1.5.** – This requirement from 40 CFR 60 Subpart IIII was added for 17E.
- **Conditions 8.1.6. through 8.1.9., 8.2.1., 8.4.4., 8.5.7.** – 17E was added to the citation section of these existing conditions.
- **Conditions 8.5.8. through 8.5.12.** – New requirements from the revised 40 CFR 60 Subpart IIII were added for 17E.

Changes requested in minor modification application R30-05100005-2019 MM04:

- **Condition 1.1** – The Emission Units table was amended to modify the entry for 18S to include the information for the new diesel emergency engine and for Tank #29 to include the information for the new diesel fire pump fuel tank.
- **Condition 7.0.** – The references to Emergency Diesel Driven Fire Pumps 17S and 18S were removed because the new replacement engines were moved to Section 8.0.
- **Condition 8.0** – Diesel Driven Emergency Fire Pump Engines 17E and 18E were added to the list of emission units and emission point IDs in the title section.
- **Condition 8.1.5.** – This requirement from Subpart IIII was added for 18E.
- **Conditions 8.1.6. through 8.1.9., 8.1.14. 8.2.1., 8.4.4., 8.5.7.** – 18E was added to the citation section of these existing conditions.
- **Conditions 8.5.8. through 8.5.12.** – New requirements from the revised 40 CFR Subpart IIII were added for 18E.

Other Changes:

- **Condition 4.3.1.** – The date for the next scheduled performance testing was updated. According to technical correspondence dated August 1, 2024 from the permittee, PM testing was completed on June 5 and 7, 2024 for Unit 2 and Unit 1, respectively. The emission rates for Unit 1 and Unit 2 were 0.0033 lb/MMBtu and 0.0029 lb/MMBtu, respectively. These tests represent the third consecutive compliance test with results less than or equal to 50% of the standard, which is 0.030 lb/MMBtu. Because the facility was previously on a once/3 years retest schedule, the most recent test results qualify the facility for a once/3 three year retest cycle. Therefore, the facility's next testing of Units 1 and 2 must be completed by June 7, 2027.

- **Condition 4.1.4.** – This permit condition was revised to include more information and clarification based on a request from the company.
- **Appendix F** – The current Acid Rain Permit R33-3948-2027-6 was included to replace the previous version.

Changes requested in renewal application R30-05100005-2025:

- **Condition 1.1** – The Emission Units table was amended to delete Tank #44 and add Tanks #64 through #69.

Notes: In the renewal application, the company requested to remove the 2013 126 hp Generac SG080 LB4S liquid propane gas fired emergency generator LPG and the associated 500 gallon tank LPT from the Title V permit. However, these emission units are both permitted within NSR General Permit G60-C057A. Therefore, these sources cannot be removed until G60-C057A is modified to remove them.

Also, the company requested to increase the maximum annual amount of polymer and organsulfide to be delivered to the facility from 13,500 gal/yr to 25,000 gal/yr in the Title V permit. However, this annual throughput limit is permitted within NSR Permit R13-2608E. Therefore, this annual throughput limit cannot be changed until R13-2608E has been modified to increase it.

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.** Since the facility is subject to 45CSR2, according to 45CSR§5-2.5. the facility is not included in the definition of a “Coal Preparation Plant”. Therefore, 45CSR5 does not apply to the facility, and particularly to its coal crushing operations and associated coal handling.
- b. **45CSR7 – To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations.** Since the facility is subject to 45CSR2, 45CSR§7-10.1. provides an exemption from 45CSR7.
- c. **45CSR17 – To Prevent and Control Particulate Matter Air Pollution from Material Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter.** The facility is characterized by the handling and storage of materials that have the potential to produce fugitive particulate if not properly controlled. However, since the facility is subject to 45CSR2, it is not subject to this rule in accordance with the exemption granted in 45CSR§17-6.1.
- d. **40 C.F.R. 60 Subpart D – Standards of Performance for Fossil-fuel-fired Steam Generators for which Construction is Commenced after August 17, 1971.** The fossil-fuel-fired steam generators potentially affected by this rule have not commenced construction or modification after August 17, 1971. Therefore, the units do not meet the applicability criteria under §60.40(c), and hence the NSPS does not apply.
- e. **40 C.F.R. 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units for which Construction is Commenced After September 18, 1978.** The electric utility steam generating units (i.e., Unit 1 and Unit 2) potentially affected by this rule have not commenced construction or modification after September 18, 1978. Therefore, the units do not meet the applicability criteria under §60.40Da(a)(2), and hence the NSPS does not apply to Unit 1 and Unit 2. The auxiliary boiler (Aux 1) was not constructed or reconstructed “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.” As such, Aux 1 does not meet the definition of an *Electric utility steam-generating unit* in §60.41Da, and therefore, does not meet the applicability criteria of §60.40Da(a). Consequently, NSPS Subpart Da does not apply to Aux 1.

- f. **40 C.F.R. 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.** The facility does not include storage vessels that are used to store petroleum liquids (as defined in 40 C.F.R. §60.111(b)) and that have a storage capacity greater than 40,000 gallons for which construction, reconstruction or modification was commenced after June 11, 1973 and prior to May 19, 1978. Therefore, the tanks do not meet the applicability criteria under §60.110, and hence the NSPS does not apply.
- g. **40 C.F.R. 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.** The facility does not include storage vessels that are used to store petroleum liquids (as defined in 40 C.F.R. §60.111a(b)) and that have a storage capacity greater than 40,000 gallons for which construction, reconstruction or modification was commenced after May 18, 1978 and prior to July 23, 1984. Therefore, the tanks do not meet the applicability criteria under §60.110a(a), and hence the NSPS does not apply.
- h. **40 C.F.R. 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.** Storage vessels potentially affected by this rule are exempted because they contain liquids with a maximum true vapor pressure of less than 3.5 kPa, have a storage capacity of less than 75 cubic meters, or have not commenced construction, reconstruction or modification after July 23, 1984. Therefore, the tanks do not meet the applicability criteria under §60.110b, and hence the NSPS does not apply.
- i. **40 C.F.R. 60 Subpart Y – Standards of Performance for Coal Preparation Plants.** The coal handling equipment potentially affected by this rule has not been constructed or modified after October 24, 1974. Therefore, the equipment does not meet the applicability criteria set forth in 40 C.F.R. §60.250(b), and hence this NSPS does not apply.
- j. **40 C.F.R. 63 Subpart Q – National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.** This facility does not include *industrial process cooling towers* that have operated with chromium-based water treatment chemicals. Therefore, the facility does not meet the applicability criteria set forth in §63.400(a), and hence this MACT does not apply 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: March 24, 2025

Ending Date: April 23, 2025

Point of Contact

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

Dan Roberts
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41902
Daniel.p.roberts@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)

In an email dated April 22, 2025, Joseph Whapham stated that the EPA had completed their review and did not have any comments at that time. No comments were received from the company or the public.