

Fact Sheet



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

Permit Number: **R30-05100005-2019**
Application Received: **March 18, 2019**
Plant Identification Number: **03-054-05100005**
Permittee: **Kentucky Power Company**
Facility Name: **Mitchell Plant**
Mailing Address: **1 Riverside Plaza, Columbus, Ohio 43215-2373**

Revised: N/A

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 7020 mmBtu/hr each, one (1) oil-fired auxiliary boiler with a rated design capacity of 663 mmBtu/hr, 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.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions ¹	2018 Actual Emissions ²
Carbon Monoxide (CO)	4,761.61	613.98
Nitrogen Oxides (NO _x)	36,392.38	2,353.80
Particulate Matter (PM _{2.5})	1,100.5	27.97
Particulate Matter (PM ₁₀)	3,173.3	62.00
Total Particulate Matter (TSP)	5,428.11	177.65
Sulfur Dioxide (SO ₂)	89,746.85	2,493.98
Volatile Organic Compounds (VOC)	563.88	73.28
Hazardous Air Pollutants	Potential Emissions ¹	2018 Actual Emissions ²
Hydrogen Chloride	12,337	10.52
Hydrogen Fluoride	1,071	9.91
Selenium	48.45	0.81
Manganese	3.77	0.06
Nickel	1.69	0.18
Arsenic	5.62	0.04
Mercury compounds	2.13	0.01
Beryllium	13.37	2.3 × 10 ⁻³
Chromium	2.00	0.06
Cobalt	0.74	0.02
Lead	3.65	0.04

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.

Title V Program Applicability Basis

This facility has the potential to emit 4,761.61 tpy of CO; 36,392.38 tpy of NO_x; 3,173.3 tpy of PM₁₀; 89,746.85 tpy of SO₂; 563.88 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) (14)	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 # R33-3948-2022-5A	March 12, 2019	

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

Unless otherwise noted or specified by the context, in the following discussions the term "current permit" means Title V operating permit R30-05100005-2014 (SM01). The following changes have been incorporated into this renewal operating permit:

1. **Emission Units Table.** The following changes have been made in permit section 1.1.:
 - a. To reflect the off-permit change OP01 (discussed below) and the renewal application for the Rock Salt Storage Pile, the emission unit ID 19S has been deleted; the capacity changed from 50 tons to 600 tons; and 2014 added to the year installed.
 - b. Eleven (11) tanks (Tank #53 through Tank #63) identified in the renewal application have been added.

- c. The Clean Burn Furnace Model CB-3250 has been added for reasons discussed below concerning the off-permit change OP02 and State rule 45CSR2.
2. **Facility-wide Reporting.** The reporting requirements in 3.5.3., 3.5.5., and 3.5.6. have been updated.
 3. **Permit Sections for Boilers.** Current Title V section 4.0 has been divided into two sections for the main boilers (renewal section 4.0) and the auxiliary boiler (renewal section 5.0) per the permittee’s request. Subsequent permit section numbers and conditions have been revised accordingly. Conditions in the current permit R30-05100005-2014 (SM01) have been either moved or copied into Section 5.0. Conditions that apply only to Aux 1 have been moved. Conditions that apply to both Aux 1 and the main boilers have been copied and written in Section 5.0. Parenthetical references to Unit 1 and Unit 2 following citations of authority in Section 4.0 have been deleted. The table below describes the changes.

Current Condition	Renewal Condition	Discussion
4.1.1.	5.1.1.	Emergency Operating Scenarios requirements have been written in renewal condition 5.1.1. The text has been revised to remove the auxiliary boiler in 4.1.1. and the main boilers in 5.1.1.
4.1.3.	5.1.2.	The requirement to minimize emissions under 45CSR§2-9.2 has been written in section 5.
4.1.9.	5.1.3.	Pollutant limits for Aux 1 have been moved to section 5.
4.1.10.	5.1.4.	Compliance with SO ₂ limits has been moved to section 5.
4.1.13.	5.1.5.	The Boiler MACT compliance date has been moved to section 5.
4.1.14.	5.1.6.	The Boiler MACT tune-up requirement has been moved to section 5. The initial tune-up requirements have been removed as discussed under 40 C.F.R. 63 Subpart DDDDD.
4.2.4.	5.2.1.	Compliance with VE requirements has been moved to section 5.
4.2.5.	5.2.2.	Compliance with PM emissions and fuel usage requirements has been moved to section 5.
4.2.13.	5.2.3.	Records of fuel oil usage has been moved to section 5.
4.2.14.	5.2.4.	Records of fuel oil specifications has been moved to section 5.
4.2.15.	5.2.5.	VE observations has been moved to section 5.
4.4.1.	5.4.1.	Records of monitoring data has been written in section 5.
4.4.2.	5.4.2.	Records of operating schedule and fuel consumed has been written in section 5.
4.4.5.	5.4.3.	Records of Boiler MACT notifications, reports, and testing has been moved to section 5.
4.4.8.	5.4.4.	Format and retention of records under the Boiler MACT has been written in section 5. The language in renewal condition 4.4.8.(c) has been revised to specify the language in §63.10033(c).
4.4.9.	5.4.3.	Records of fuel use has been moved to section 5 and streamlined with requirement §63.7555(a)(3) in condition 5.4.3. Refer to the discussion of the revision of 40 C.F.R. 63 Subpart DDDDD below.
4.5.2.	5.5.1.	The periodic exception report has been written in section 5. The reference to I.B.4. has been deleted in condition 4.5.2. The references to I.A.4. and II.A.4. have been deleted in condition 5.5.1.
4.5.3.	5.5.2.	The excess opacity reporting requirement has been written in section 5. Reference to Aux 1 in condition 4.5.3. has been deleted. Reference to Units 1 and 2 in condition 5.5.2. has been deleted.
4.5.4.	5.5.3.	The excess opacity reports requirement has been written in section 5. Reference to Aux 1 in condition 4.5.4. has been deleted. Reference to Units 1 and 2 in condition 5.5.3. has been deleted.

Current Condition	Renewal Condition	Discussion
4.5.7.	None	The Boiler MACT NOCS has been excluded from the renewal permit for the reasons discussed below under 40 C.F.R. 63 Subpart DDDDD.
4.5.8.	5.5.4.	The Boiler MACT deviations reporting has been moved to section 5.
4.5.9.	5.5.5.	The Boiler MACT Compliance report has been moved to section 5.
4.5.10.	5.5.6.	The excess opacity report has been moved to section 5.

4. **Off-permit changes.** Two off-permit change notifications were received during the current permit term, which are discussed below.
 - a. **OP01** – DAQ received a notification from the permittee, dated November 14, 2014, involving a proposed off-permit change to increase the capacity of the Rock Salt Storage Pile (Em. Unit ID: 19S). Specifically, the capacity would increase from 50 tons to 600 tons; with 100 tons at one location on site and 500 tons at a second location on site, and with a total throughput of 3,200 tons of rock salt per year. This change was acknowledged by DAQ in a letter dated November 19, 2014, and the change has been made in the renewal permit.
 - b. **OP02** – DAQ received a notification from the permittee, dated April 9, 2018, involving a proposed off-permit change for the installation and subsequent operation of a distillate fuel oil fired comfort heating furnace and an associated distillate fuel oil tank at the Mitchell Plant. Specifically, the change involves the installation of a Clean Burn Model CB-3250 furnace and a 2,000-gallon double wall construction, aboveground distillate fuel oil tank. The tank will be used to store fuel for use in the associated furnace. Both the tank and furnace are located at the garage near the Mitchell Plant ash storage landfill. The permittee requested that Table 1.1 of the Title V permit be appended to include Tank #1092 which will be described as “Landfill Building Furnace Distillate Fuel Oil Tank #1092.” The tank has been included as Tank #53 (rather than #1092) in the renewal permit. The permittee stated that the fuel oil furnace and associated tank do not trigger any new regulatory or permitting requirements. The permittee stated that the tank is not subject to 40 C.F.R. 60 Subpart Kb because the maximum true vapor pressure of distillate fuel is less than the applicable thresholds in 40 C.F.R. §60.110b(b) and the tank has a capacity of less than 75 m³. Total emissions from the tank were estimated by the permittee using U.S. EPA’s TANKS software (version 4.0.9d) to be less than 1.1 lb/year. The permittee estimated furnace emissions (assuming a conservative 8,760 hr/yr operation): NO_x 0.2 tpy; CO 0.05 tpy; PM 0.0037 tpy; SO₂ 0.002 tpy; and VOC 0.0066 tpy. The permittee stated that the tank and furnace have been installed and the equipment would be placed into service on April 9, 2018. This change was approved by DAQ on April 16, 2018, and the change has been made in the 2019 renewal permit. The furnace has been added to the emission units table (permit section 1.1.) since it is subject to the opacity standard and compliance methodology in 45CSR§§2-3.1. and 3.2. which are set forth in permit conditions 9.1.1. and 9.1.2, respectively.
5. **45CSR2 – To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.** This rule establishes emission limitations for smoke and particulate matter which are discharged from fuel burning units. Applicable requirements from this rule must be evaluated with respect to the following particulate emission sources:

Clean Burn Model CB-3250 Furnace

As discussed above under off-permit change OP02, the permittee installed a 0.325 MMBtu/hr Clean Burn Model CB-3250 distillate fuel oil fired comfort heating furnace. On the Clean Burn furnace website¹, the manual for model CB-3250 indicates that it has a heat exchanger/combustion chamber. This means the unit produces heat by indirect heat transfer, and thereby meets the definition of “Fuel Burning Unit” in 45CSR§2-2.10. As a fuel burning unit, the furnace is subject to the ten (10) percent

¹ See <https://www.cleanburn.com> accessed by the writer on June 12, 2019.

opacity standard and compliance methodology in 45CSR§§2-3.1. and 3.2. Refer to permit conditions 9.1.1. and 9.1.2. Being less than 10 MMBtu/hr, the furnace CB-3250 is exempt from sections 4 (weight emission standards), 5 (fugitive PM control), 6 (registration), 8 (testing and MRR), and 9 (SSM requirements) of 45CSR2 per the exemption in 45CSR§2-11.1. This exemption has been specified in permit condition 9.1.3. However, a requirement for Method 9 monitoring at the discretion of the Director has been added as permit condition 9.2.1.

Unit 1 and Unit 2 Steam Generators

The current permit condition 4.3.1. states that the next particulate matter testing of the main steam generators shall be performed no later than March 20, 2016. Technical correspondence from the permittee dated 6/28/2019 stated that based on the most recent testing completed December 13, 2018, the next scheduled testing deadline is December 13, 2021, which has been included in the renewal permit.

Finally, the facility environmental contact has been updated on the first page of the 45CSR2 Monitoring and Recordkeeping Plan (permit appendix A) to reflect the renewal application, which was confirmed by the permittee in 6/28/2019 technical correspondence.

6. **45CSR10 – To Prevent and Control Particulate Air Pollution from the Emission of Sulfur Oxides.** The purpose of this rule is to prevent and control air pollution from the emission of sulfur oxides from fuel burning units, manufacturing source operations, and the combustion of refinery or process gas streams. Being less than 10 MMBtu/hr, the furnace CB-3250 is exempt from sections 3 and 6 through 8 of 45CSR10 per the exemption in 45CSR§10-10.1. The furnace is not a manufacturing process source operation; therefore, section 4 is not applicable. Also, it does not combust refinery or process gas streams; therefore, section 5 is not applicable. Even though the furnace is subject to 45CSR10, there are no requirements in the rule applicable to the furnace CB-3250. All other requirements applicable to other emission units have already been retained in the renewal operating permit.
7. **45CSR43 – Cross-State Air Pollution Rule to Control Annual Nitrogen Oxides Emissions, Annual Sulfur Dioxide Emissions, and Ozone Season Nitrogen Oxides Emissions.** This rule establishes and adopts the federal Cross-State Air Pollution Rule (CSAPR), limited the interstate transport of emissions of NO_x and SO₂, through emissions trading programs. This rule codifies general procedures and criteria to implement the CSAPR NO_x Annual Trading Program set forth in 40 C.F.R. part 97, subpart AAAAA. This rule codifies general procedures and criteria to implement the CSAPR NO_x Ozone Season Group 2 Trading Program set forth in 40 C.F.R. part 97, subpart EEEEE. This rule codifies general procedures and criteria to implement the CSAPR SO₂ Group 1 Trading Program set forth in 40 C.F.R. part 97, subpart CCCCC. The Secretary hereby adopts these standards by reference. The Secretary also adopts associated reference methods, performance specifications and other test methods referenced by these standards. Therefore, this rule has been included in the citations of authority for conditions 3.1.11., 3.1.12., and 3.1.13. that contain applicable requirement from 40 C.F.R. part 97, subparts AAAAA, EEEEE, and CCCCC, respectively.
8. **40 C.F.R. Part 97, Subparts AAAAA,BBBBB, CCCCC, and EEEEE – CSAPR NO_x Annual Trading Program, CSAPR NO_x Ozone Season Group 1 Trading Program, CSAPR SO₂ Group 1 Trading Program, and CSAPR NO_x Ozone Season Group 2 Trading Program.** Each of the main boilers at the facility are a stationary, fossil-fuel-fired boiler serving after January 1, 2005 a generator with nameplate capacity of more than 25 MWe producing electricity for sale (§97.404(a)(1)). Units 1 and 2 were constructed in 1971. Units 1 and 2 are of 816.3 MW nameplate capacity each. The subparts have been reviewed to determine applicability to the main boilers.

- a. **Subpart AAAAA – CSAPR NO_x Annual Trading Program.** This subpart sets forth the general, designated representative, allowance, and monitoring provisions for the Cross-State Air Pollution Rule (CSAPR) NO_x Annual Trading Program, under section 110 of the Clean Air Act and §52.38 of this chapter, as a means of mitigating interstate transport of fine particulates and nitrogen oxides. Permit condition 3.1.11. refers to Appendix E in the current permit which contains Transport Rule (TR) requirements that were in 40 C.F.R. §97.406. The requirements have been revised to reflect the CSAPR requirements in §97.406. Permit condition 3.1.11. and Appendix E have been revised to reflect the CSAPR requirements and 45CSR43 has been added to the citation of authority.
- b. **Subpart BBBBB – CSAPR NO_x Ozone Season Group 1 Trading Program.** This subpart sets forth the general, designated representative, allowance, and monitoring provisions for the Cross-State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 1 Trading Program, under section 110 of the Clean Air Act and §52.38 of this chapter, as a means of mitigating interstate transport of ozone and nitrogen oxides. Permit condition 3.1.12. refers to Appendix E in the current permit which contains Transport Rule (TR) requirements that were in 40 C.F.R. §97.506. Subpart BBBBB (§97.502) provides the following definitions:

CSAPR NO_x Ozone Season Group 1 Trading Program means a multi-state NO_x air pollution control and emission reduction program established in accordance with this subpart and §52.38(b)(1), (b)(2)(i) and (ii), (b)(3) through (5), and (b)(10) through (12) of this chapter (including such a program that is revised in a SIP revision approved by the Administrator under §52.38(b)(3) or (4) of this chapter or that is established in a SIP revision approved by the Administrator under §52.38(b)(5) of this chapter), as a means of mitigating interstate transport of ozone and NO_x.

CSAPR NO_x Ozone Season Group 2 Trading Program means a multi-state NO_x air pollution control and emission reduction program established in accordance with subpart EEEEE of this part and §52.38(b)(1), (b)(2)(i) and (iii), (b)(6) through (11), and (b)(13) of this chapter (including such a program that is revised in a SIP revision approved by the Administrator under §52.38(b)(7) or (8) of this chapter or that is established in a SIP revision approved by the Administrator under §52.38(b)(6) or (9) of this chapter), as a means of mitigating interstate transport of ozone and NO_x.

By comparing the sections listed in the definitions, the difference between Group 1 and Group 2 has been determined. §52.38(b)(2)(ii) states that Subpart BBBBB applies to sources in West Virginia for emissions occurring in 2015 and 2016 only. Therefore, **Subpart BBBBB is not included in the 2019 renewal permit.** Further, 45CSR43 does not incorporate Subpart BBBBB. §52.38(b)(2)(iii) states that Subpart EEEEE applies to sources in West Virginia for emissions occurring in 2017 and each subsequent year. Therefore, the Subpart EEEEE requirements have been included in the 2019 renewal permit (see discussion below) and will replace the TR NO_x Ozone Season Group 1 Trading Program Requirements that were in 40 CFR §97.506.

- c. **Subpart CCCCC – CSAPR SO₂ Group 1 Trading Program.** This subpart sets forth the general, designated representative, allowance, and monitoring provisions for the Cross-State Air Pollution Rule (CSAPR) SO₂ Group 1 Trading Program, under section 110 of the Clean Air Act and §52.39 of this chapter, as a means of mitigating interstate transport of fine particulates and sulfur dioxide.

§97.602 of Subpart CCCCC provides the following definition:

CSAPR SO₂ Group 1 Trading Program means a multi-state SO₂ air pollution control and emission reduction program established in accordance with this subpart and §52.39(a), (b), (d) through (f), and (j) through (l) of this chapter (including such a program that is revised in a SIP revision approved by the Administrator under §52.39(d) or (e) of this chapter or that is established in a SIP revision approved by the Administrator under

§52.39(f) of this chapter), as a means of mitigating interstate transport of fine particulates and SO₂.

§97.702 of Subpart DDDDD provides the following definition:

CSAPR SO₂ Group 2 Trading Program means a multi-state SO₂ air pollution control and emission reduction program established in accordance with this subpart and §52.39(a), (c), (g) through (k), and (m) of this chapter (including such a program that is revised in a SIP revision approved by the Administrator under §52.39(g) or (h) of this chapter or that is established in a SIP revision approved by the Administrator under §52.39(i) of this chapter), as a means of mitigating interstate transport of fine particulates and SO₂.

By comparing the sections listed in the definitions, the difference between Group 1 and Group 2 has been determined. §52.39(b) states that Subpart CCCCC applies to sources in West Virginia for emissions occurring in 2015 and each subsequent year. §52.39(c) states that Subpart DDDDD applies to sources in states other than West Virginia. Therefore, **Subpart CCCCC requirements have been included in the 2019 renewal permit** and will replace the TR SO₂ Group 1 Trading Program Requirements that were in 40 CFR §97.606. Permit condition 3.1.13. and Appendix E have been revised to reflect the CSAPR requirements and 45CSR43 has been added to the citation of authority.

- d. **Subpart EEEEE – CSAPR NO_x Ozone Season Group 2 Trading Program.** This subpart sets forth the general, designated representative, allowance, and monitoring provisions for the Cross-State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program, under section 110 of the Clean Air Act and §52.38 of this chapter, as a means of mitigating interstate transport of ozone and nitrogen oxides. Subpart EEEEE requirements have been included in the 2019 renewal permit and will replace the TR NO_x Ozone Season Group 1 Trading Program Requirements that were in 40 CFR §97.506. The requirements have been revised to reflect the CSAPR requirements in §97.806. Permit condition 3.1.12. and Appendix E have been revised to reflect the CSAPR requirements and 45CSR43 has been added to the citation of authority.
9. **General Permit G60-C, General Permit Registration G60-C057A, and General Permit G60-D.** General Permit G60-C and registration G60-C057A were included in the 2014 Title V renewal permit and, in general, remain applicable to the engines LPG, EG-1, and EG-2. However, General Permit G60-D was issued on May 9, 2018, to replace General Permit G60-C that was issued on May 21, 2009. According to the Fact Sheet for General Permit G60-D, the only changes to G60-C are to allow for the incorporation by reference of NSPSs 40 C.F.R. 60 Subparts IIII and JJJJ, and NESHAPs-MACT 40 C.F.R. 63 Subpart ZZZZ. However, several specific requirements in the General Permit have also been revised.

The permittee requested that the specific requirements in the general permit be included in the Title V renewal permit rather than referring to applicable sections of the general permit. Where applicable and warranted, the specific requirements of General Permit G60-D have been transcribed from the general permit to conditions in renewal permit section 8.0 as described in the following Table G60-D. Because the requirements are now in the operating permit, an appendix for G60-D is not necessary and has been deleted from the renewal permit.

Table G60-D

G60-D Section	2019 Renewal Permit Condition	Discussion
1.0	None	Current Title V permit conditions 7.1.2. and 7.1.3. state that Section 1.0 is applicable. Section 1.0 specifies the emission units covered by the general permit and states that they are listed in the G60-D registration. Since the engines are listed in Section 1.1 of the Title V permit, the heading of renewal permit section 8.0, and in the included registration (Appendix G), a permit condition based on general permit section 1.0 is unwarranted.
2.0	None	Current Title V permit condition 7.1.2. states that Section 2.0 is applicable. Section 2.0 specifies the purpose, authority, applicability, and other general requirements concerning the general permit for which conditions are unwarranted in renewal Title V Section 8.0.
3.0	None	Current Title V permit condition 7.1.2. states that Section 3.0 is applicable. Section 3.0 specifies facility-wide and other “boilerplate” requirements under the general permit (many of which are already in Title V permit section 3.0) for which conditions are unwarranted in renewal Title V Section 8.0.
4.0	No new conditions	<p>Current Title V permit condition 7.1.2. states that Section 4.0 is applicable.</p> <ul style="list-style-type: none"> • Requirement 4.1.1. pertains to air pollution control devices and equipment. None of the engines LPG, EG-1, and EG-2 are equipped with an APCD; therefore, this requirement is not applicable. • Requirement 4.1.2. pertains to applicability of State and Federal regulations. Conditions are unwarranted in renewal Title V Section 8.0. • Requirement 4.2.1. pertains to monitoring information, which is already covered by permit condition 3.4.1. No additional permit condition is warranted. • Requirement 4.2.2. pertains to records of maintenance for APCDs. Since the engines do not utilize APCDs, this requirement is not applicable. • Requirement 4.2.3. pertains to records of malfunctions of APCDs. Since the engines do not utilize APCDs, this requirement is not applicable.
Section 5.0 – Reciprocating Internal Combustion Engines		
5.1.1.	None	This requirement establishes the definition of <i>emergency generator</i> for G60-D. No permit condition is warranted.
5.1.2.	8.1.1.	This is a requirement to meet the emission limitations in the general permit registration. This requirement is in the current Title V permit and has been retained in the renewal permit.
5.1.3.	8.1.1.	This is a requirement to limit the hours of operation to 500 hr/yr for each engine subject to the general permit. The annual limits in Title V permit condition 8.1.1. are based on 500 hr/yr, which is specified in the table footnote in the condition. Furthermore, the requirements pertaining to a 12-month rolling total have been added to the footnote. For these reasons, requirement 5.1.3. has been added to the citation of authority.

G60-D Section	2019 Renewal Permit Condition	Discussion
5.1.4.	8.1.2.	This applicable requirement has been included in the renewal permit.
5.1.5.	None	This requirement pertains to catalytic reduction devices. Since none of the affected engines are required to utilize a control device, this requirement is not applicable.
5.1.6.	<p><u>EG-1 & EG-2</u> 8.1.5., 8.1.6., 8.1.7. 8.1.8., 8.1.9., 8.2.1., 8.4.4.</p> <p><u>LPG</u> 8.1.10., 8.1.11., 8.1.12. 8.1.13., 8.4.5. 8.4.6., 8.4.7., 8.5.1.</p>	This section requires compliance with NSPS Subparts IIII and JJJJ, and MACT Subpart ZZZZ. This section has been added to the citations of authority for all such permit conditions. All conditions for EG-1 and EG-2 are Subpart IIII requirements. All conditions for LPG are Subparts JJJJ and ZZZZ requirements.
5.1.7.	8.1.3.	This section pertains to startup/shutdown requirements and has been included in the renewal permit.
5.2.1.	None	This requirement pertains to catalytic reduction devices. Since none of the affected engines are required to utilize a control device, this requirement is not applicable.
5.3.1.	8.4.1.	This requirement pertains to records of the hours of operation of the emergency generators and has been included in the renewal permit to replace the language from requirement 5.4.1. of general permit G60-C.
5.3.2.	8.4.2.	This requirement pertains to records of the maintenance performed on the emergency generators and has been included in the renewal permit.
5.3.3.	None	This requirement pertains to general permit section 5.2.1. for catalytic reduction devices. Since none of the affected engines are required to utilize a control device and 5.2.1. is not applicable, this requirement is not applicable.
5.3.4.	<p><u>EG-1 & EG-2</u> 8.4.4.</p> <p><u>LPG</u> 8.4.5., 8.4.6., 8.4.7.</p>	This section requires compliance with applicable <i>recordkeeping</i> in NSPS Subparts IIII and JJJJ, and MACT Subpart ZZZZ. This section has been added to the citations of authority for all such permit conditions.
5.3.5.	8.4.3.	This requirement pertains to the retention of records required in conditions 8.4.1. and 8.4.2. The corresponding Title V condition 3.4.2. has been added to the permit condition.
5.4.1.	None	This section requires compliance with applicable <i>testing</i> in NSPS Subparts IIII and JJJJ, and MACT Subpart ZZZZ. Based upon the analyses of these Subparts in this Fact Sheet, there are no applicable testing requirements. Therefore, this section has not been included with any citation of authority.
5.4.2.	None	This requirement pertains to general permit section 5.1.5.a. for catalytic reduction devices. Since none of the affected engines are required to utilize a control device, this requirement is not applicable.

G60-D Section	2019 Renewal Permit Condition	Discussion
5.5.1.	8.5.1.	This section requires compliance with applicable <i>notification</i> requirements in NSPS Subparts IIII and JJJJ, and MACT Subpart ZZZZ. This section has been added to the citation of authority for the Subpart JJJJ reporting requirement applicable to engine LPG.
Section 6.0 – Tanks		
6.1.1.	8.1.4.	<p>The tanks section is not applicable to the propane tank that stores fuel for the engine LPG. According to the Engineering Evaluation for G60-C057, the tank stores propane as a liquid under pressure and is not considered a source of emissions. Therefore, the evaluation states that Section 6 for tanks is not applicable.</p> <p>The modification permitted under G60-C057A is for the installation of two (2) diesel fuel-fired emergency generators EG-1 and EG-2. The registration G60-C057A states (by the “X” on page 3) that the tanks section of the general permit is applicable to the registrant. Though the requirement 6.1.1. states that any tanks used will be listed in the registration, and none are listed therein, the tanks (EGT01, EGT02) are listed in the current Title V permit and requirement 6.1.1. provides that such tanks shall be used for fuel storage for the emergency generators only. Since the registration states that the tanks section is applicable, and 6.1.1. specifies an applicable requirement, 6.1.1. has been included in the renewal permit as condition 8.1.4.</p>
6.2.1. through 6.5.1.	None	The requirements 6.2.1., 6.3.1., 6.4.1., and 6.5.1. all refer to their respective facility-wide requirements, which are in Section 3.0 of the general permit. As stated in the discussion of 3.0 above, additional conditions are unwarranted in renewal Title V Section 8.0.

All occurrences of General Permit No. G60-C have been changed to G60-D throughout the Title V permit, which is primarily in Section 8.0. However, since the registration G60-C057A has not been updated, its number will not be changed.

The 40 C.F.R. 63 Subpart ZZZZ requirements applicable to the emergency quench pump engines 6S (15E) and 7S (16E), and the fire pump engines 17S (17E) and 18S (18E), are in permit section 7.0. These engines are not permitted under the general permit registration G60-C057A.

10. **40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of §60.4200. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. This subpart is potentially applicable to the following compression ignition engines:

- Black Start Emergency Generator engines (emission unit IDs: EG-1, EG-2)
 - EG-1 is rated at 3,717-bhp to deliver 2,500 kW at 4,160 volts
 - EG-2 is rated at 3,004-bhp to deliver 2,050 kW at 13,800 volts
 - Both were installed in 2014

- Emergency Quench Water Pump Diesel-fired Engines (emission unit IDs: 6S, 7S)
 - 6S and 7S are 60-bhp each
 - Construction commenced June 4, 2004
 - Both were installed in 2007

- Emergency Diesel-Driven Fire Pumps (emission unit IDs: 17S, 18S)
 - 17S and 18S are 230-bhp each
 - Both were installed in 1971

EG-1 and EG-2

EG-1 and EG-2 meet the applicability criteria in §60.4200(a)(2)(i). The two engines are certified for the 2014 model year under the following Engine Family and Certificate Number that was issued by U.S. EPA:

Table #3 U.S. EPA Certificate Numbers for Part 60 Compliance			
Generator Set Model	Engine Manufacturer	Engine Family	Certificate Number
DM8450	Caterpillar Inc.	ECPX106.NZS-011	ECPX178.1NZS-024
DM8268	Caterpillar Inc.	ECPX178.1NZS	ECPX178.1NZS-024

The applicable requirements of this subpart for EG-1 and EG-2 were IBR in current Title V permit condition 7.1.3. However, for this renewal, the specific requirements applicable to the engines have been written in section 8.0 of the operating permit as described in Table III below.

6S and 7S

The applicability criteria are set forth in §60.4200 of Subpart III. §60.4200(a)(1) is not applicable to engines 6S and 7S since it pertains to manufacturers and the model year of each engine does not meet any criteria in §60.4200(a)(1)(i). Construction of 6S and 7S commenced before July 11, 2005; therefore, §60.4200(a)(2) is not applicable. §60.4200(a)(3) is not applicable since the engines have not been modified or reconstructed. §60.4200(a)(4) is not applicable since construction of the engines commenced before July 11, 2005. Since the engines 6S and 7S do not meet any of the applicability criteria in §§60.4200(a)(1) through (4), they are not subject to any Subpart III requirement.

17S and 18S

§60.4200(a)(1) is not applicable to engines 17S and 18S since it pertains to manufacturers and the model year of each engine does not meet any criteria in §60.4200(a)(1)(ii). Construction of 17S and 18S commenced before July 11, 2005; therefore, §60.4200(a)(2) is not applicable. §60.4200(a)(3) is not applicable since the engines have not been modified or reconstructed. §60.4200(a)(4) is not applicable since construction of the engines commenced before July 11, 2005. Since the engines 17S and 18S do not meet any of the applicability criteria in §§60.4200(a)(1) through (4), they are not subject to any Subpart III requirement.

Table III below sets forth an analysis of Subpart III for the affected engines EG-1 and EG-2 and details how the requirements are incorporated into the renewal operating permit.

Table III

Subpart III	Title V	Discussion
§60.4200	None	EG-1 and EG-2 meet the criteria in §60.4200(a)(2)(i). However, no permit condition is warranted for this section.
§60.4201	None	This section pertains to manufacturers of non-emergency engines. Since the permittee is not a manufacturer, this section is not applicable.

Subpart III	Title V	Discussion
§60.4202	None	This section applies directly to manufacturers of emergency engines. This section is not directly applicable to the permittee since it does not manufacture engines. However, the requirements of this paragraph are incorporated by reference into the applicable requirement of §60.4205(b).
§60.4203	None	This section pertains to manufacturers of stationary CI internal combustion engines. Since the permittee is not a manufacturer, this section is not applicable.
§60.4204	None	This section pertains to owners or operators of non-emergency engines. Since the engines are for emergency use, this section is not applicable.
§60.4205(a)	None	This paragraph is applicable to pre-2007 model year emergency stationary CI ICE. According to the renewal application, the engines were constructed in August of 2014; therefore, this paragraph is not applicable.
§60.4205(b)	8.1.5.	<p>This paragraph is applicable to 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines. The paragraph requires such engines to comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.</p> <p>The engines meet the above criteria for §60.4205(b) to apply. Therefore, referenced §60.4202 has been reviewed to extract the applicable requirements.</p> <p>§60.4202(a) is not applicable since the engines have a maximum power greater than 3,000-hp.</p> <p>§60.4202(b) is applicable since the engines have a maximum power greater than 3,000-hp. Specifically, applicable §60.4202(b)(2) requires manufacturer certification to the emission standards specified for new nonroad CI engines for the same model year and maximum engine power in 40 CFR §89.112 and 40 CFR §89.113 for all pollutants.</p> <ul style="list-style-type: none"> • Table 1 at §89.112(a) specifies the emission standards. Since both emergency generators are rated greater than 560-kW, and later than model year 2006, the applicable standards are the Tier 2 emission limits 6.4, 3.5, and 0.20 (g/kW-hr) for NO_x+NMHC, CO, and PM, respectively. • 40 CFR §89.113(c)(3) exempts constant-speed engines from the requirements of 40 CFR §89.113. Since an electric generator operates at constant speed, the requirements in §89.113 are not applicable. Therefore, the reference in §60.4202(b)(2) to §89.113 has been excluded from the permit condition.

Subpart III	Title V	Discussion
		<p>The remaining paragraphs in §60.4202 are not applicable for the following reasons:</p> <ul style="list-style-type: none"> • §60.4202(c) is not applicable since it is reserved. • §60.4202(d) is not applicable since it pertains to fire pump engines. • §60.4202(e) is not applicable since the engines do not meet any of the horsepower and cylinder displacement criteria in this paragraph. • §60.4202(f) is not applicable since the engines do not meet any of the electric output and cylinder displacement criteria in this paragraph. • §60.4202(g) is not applicable since it pertains to engines used solely in either remote areas of Alaska and marine offshore installations. • §60.4202(h) is not applicable since it pertains to reconstructed engines.
§60.4205(c)	None	This paragraph is not applicable since it pertains to fire pump engines.
§60.4205(d)	None	This paragraph is not applicable since it pertains to emergency engines with a displacement of greater than or equal to 30 liters per cylinder.
§60.4205(e)	None	This paragraph is applicable to owners of emergency engines with a displacement of less than 30 liters per cylinder who conduct performance tests in-use. Since the engines are certified and the application does not indicate any changes have been made to render them non-certified, then no Subpart III testing requirement is applicable.
§60.4205(f)	None	This paragraph is not applicable since it pertains to modified or reconstructed emergency engines.
§60.4206	8.1.6.	This paragraph is applicable since it requires compliance with emission standards in §60.4205 over the entire life of the engine.
§60.4207(a)	None	This paragraph is no longer applicable since the date specified has passed and the requirement in §60.4207(b) is applicable.
§60.4207(b)	8.1.7.	This paragraph is applicable. The fuel specifications in §80.510(b) are for sulfur content, as well as minimum cetane index or aromatic content. The sulfur content for locomotive (LM) diesel has been excluded.
§60.4207(c)	None	This paragraph is not applicable since it is reserved.
§60.4207(d)	None	This paragraph is not applicable since it pertains to engines with a displacement of greater than or equal to 30 liters per cylinder.
§60.4207(e)	None	This paragraph is not applicable since the engine does not have a national security exemption under §60.4200(d).
§60.4208	None	The engine is already installed; therefore, this section regarding deadlines to import and install engines is not applicable.
§60.4209(a)	8.2.1.	The permittee's engines are emergency stationary CI internal combustion engines that do not meet the standards applicable to non-emergency engines; therefore, the permittee must install a non-resettable hour meter on each engine prior to startup of the engines.
§60.4209(b)	None	The permittee's engines are not equipped with a diesel particulate filter to comply with the emission standards in §60.4204 (which are not applicable); therefore, this paragraph is not applicable.
§60.4210	None	This section pertains to manufacturers of engines. Since the permittee is not a manufacturer, this section is not applicable.
§60.4211(a)	8.1.8.a.	This section is applicable and is included in the current and renewal permit.
§60.4211(b)	None	This section is not applicable since the engines are not pre-2007 model year stationary CI ICE.

Subpart III	Title V	Discussion
§60.4211(c)	8.1.8.b.	This section is applicable and is included in the current and renewal permit.
§60.4211(d)	None	This section is not applicable since the engines are not subject to emission standards specified in §60.4204(c) or §60.4205(d).
§60.4211(e)	None	This paragraph is not applicable since it pertains to modified or reconstructed emergency engines.
§60.4211(f)	8.1.9.	The requirements of this paragraph have been incorporated into the renewal operating permit. However, the requirements in §60.4211(f)(2)(ii) and (2)(iii), and §60.4211(f)(3)(i) have been excluded from the permit condition since the renewal application (and prior permitting action documents) indicates that the emergency generators are used for providing emergency power and do not participate in peak shaving or load shedding. Portions of the regulatory language in the condition have been revised to remove references to the excluded paragraphs and thereby avoid confusion.
§60.4211(g)	8.1.8.c.	<p>§60.4211(g) is applicable and is included in the renewal permit as the first paragraph in condition 8.1.8.c.</p> <p>§60.4211(g)(1) is not applicable since the engines are not less than 100-hp.</p> <p>§60.4211(g)(2) is not applicable since the engines are greater than 500-hp.</p> <p>§60.4211(g)(3) is applicable and is included in the renewal permit as the second paragraph in condition 8.1.8.c.</p>
§60.4211(h)	None	This paragraph is not applicable since the engines are not equipped with an AECD.
§60.4212(a)	None	Since the engines are certified and the application does not indicate that any changes have been made to render them non-certified, then no Subpart III testing requirement is applicable.
§60.4212(b)	None	This section is not applicable since the engines are not subject to emission standards for new CI engines in 40 C.F.R. part 1039.
§60.4212(c)	None	The engines are subject to emission standards for new CI engines in 40 C.F.R. §89.112 (see discussion of §60.4205(b) above). However, the first paragraph of §60.4212 indicates that the requirements in §§60.4212(a) through (e) apply to owners and operators who conduct performance tests pursuant to this subpart. The engines are not subject to Subpart III performance testing due to being manufacturer certified. Therefore, the requirements of this paragraph are not applicable.
§60.4212(d)	None	This section is not applicable since the engines are not subject pre-2007 model year engine emission standards.
§60.4212(e)	None	This section is not applicable since the engines are not subject to emission standards for new CI engines in 40 C.F.R. part 1042.
§60.4213	None	This section is not applicable since the engines do not have a displacement greater than 30 liters per cylinder.
§60.4214(a)	None	This section is not applicable since the engines are emergency type; do not have a displacement greater than or equal to 10 liters per cylinder; and are not pre-2007 model year engines.

Subpart III	Title V	Discussion
§60.4214(b)	8.4.4.	This section is applicable to the engine in as far as the first statement provides that an initial notification is not required for emergency engines. In other words, the first statement applies an exemption to the engine. The second statement is applicable to engines starting with the applicable model year in Table 5 to Subpart III. Since the engines are greater than 175-hp, the starting model year is 2011. According to the Engineering Evaluation for G60-C057A, both engines are model year 2014. Further, both engines are emergency type that are not required to meet the standards applicable to non-emergency engines (i.e., Table 1 of Subpart III). For these reasons, this recordkeeping requirement is applicable.
§60.4214(c)	None	The engines are neither equipped with a diesel particulate filter nor are they required to be under Subpart III; therefore, this paragraph is not applicable.
§60.4214(d)	None	Though the emergency engines are rated greater than 100-hp, they neither operate nor are contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §§60.4211(f)(2)(ii) and (iii) and do not operate for the purposes specified in §60.4211(f)(3)(i). This was discussed above concerning §60.4211(f) and Title V condition 8.1.9. For these reasons, the reporting under §60.4214(d) is not applicable.
§60.4214(e)	None	This paragraph is not applicable since the engines are not equipped with an AECD.
§60.4215	None	This section is not applicable since the engines are not located in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands.
§60.4216	None	This section is not applicable since the engines are not located in Alaska.
§60.4217	None	This section is not applicable since the engines combust only diesel fuel.

11. **40 C.F.R. 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.** The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of §60.4230. Subpart JJJJ is applicable to the Liquid Propane Vapor-fired Engine (Em. Unit ID: LPG) since it is spark ignition. The following relevant details characterize the engine LPG:

- The engine drives an emergency backup electric generator.
- The engine is four-stroke lean burn (4SLB).
- The engine has been issued a USEPA 2013 Model Year Certificate of Conformity.
- The engine is rated approximately 126 brake horsepower.
- The engine is operated 500 hours or less per year.
- The engine is not equipped with an air pollution control device.

The requirements of this subpart applicable to LPG were IBR in current Title V permit condition 7.1.2. However, for this renewal, the specific requirements applicable to the engine have been written in section 8.0 of the operating permit as described in Table JJJJ below.

Table JJJJ

Subpart JJJJ	Title V	Discussion
§60.4230(a)	None	The engine meets the criteria in §60.4230(a)(4)(iv) since it was manufactured after January 1, 2009, is an emergency engine, and is greater than 25-hp. However, this section does not require the permittee to do anything; therefore, no permit condition is warranted.
§60.4230(b)	None	This section is not applicable since the engine is not being tested at an engine test cell/stand.
§60.4230(c)	None	This section is not applicable since the facility is subject to the Title V permitting program.
§60.4230(d)	None	This section is not applicable since the engine does not combust alcohol-based fuels or gasoline.
§60.4230(e)	None	This section is not applicable since the engine is not subject to an exemption described in 40 C.F.R. part 1068, subpart C.
§60.4230(f)	None	This section is not applicable since the engine is not acting as a temporary replacement unit located at a stationary source less than 1 year.
Emission Standards for Manufacturers		
§§60.4231(a) through (g)	None	This section pertains to manufacturers of non-emergency engines. Since the permittee is not a manufacturer this section is not applicable.
§60.4232	None	This section pertains to manufacturers of engines. Since the permittee is not a manufacturer, this section is not applicable.
Emission Standards for Owners and Operators		
§60.4233(a)	None	This section pertains to engines less than or equal to 25-hp. Since the engine does not meet this criterion, this section is not applicable.
§60.4233(b)	None	This section pertains to engines greater than 25-hp that combust gasoline. Since the engine does not combust gasoline, this section is not applicable.
§60.4233(c)	None	This section pertains to engines greater than 25-hp, manufactured after the applicable date in §60.4230(a), that are rich burn and combust LPG. Since the engine is lean burn, this section is not applicable.
§60.4233(d)	None	This section pertains to engines rated between 25-hp and 100-hp. Since the engine is greater than 100-hp, this section is not applicable.
§60.4233(e)	8.1.10.	This section requires engines greater than 100-hp to comply with the emission standards in Table 1 to Subpart JJJJ. In Table 1, the row for emergency engines rated between 25-hp and 130-hp is applicable and specifies NO _x and CO limits of 10 g/HP-hr and 387 g/HP-hr, respectively. Footnote “c” to the table clarifies that the emission standard is in terms of NO _x + HC, which is footnote (1) in the permit condition.
§60.4233(f)	None	This section pertains to engines that are modified or reconstructed. Since the engine is neither of these, this section is not applicable.
§60.4233(g)	None	This section pertains to engines that combust wellhead gas. Since the engine does not combust wellhead gas, this section is not applicable.
§60.4233(h)	None	The engine is certified and therefore is not required to be tested under Subpart JJJJ; therefore, this section is not applicable.
§60.4234	8.1.11.	This applicable section requires the engine achieve the emission standards required in §60.4233 over the entire life of the engine.
Other Requirements for Owners and Operators		
§60.4235	None	This section pertains to engines that combust gasoline. Since the engine does not combust gasoline, this section is not applicable.

Subpart JJJJ	Title V	Discussion
§60.4236	None	This section pertains to deadlines for importing and installing stationary SI ICE produced in previous model years. The application does not indicate that the permittee intends to do this; therefore, a permit condition from this section is not warranted.
§60.4237(a)	None	This section pertains to emergency engines rated greater than or equal to 500-hp. Since the engine is less than 500-hp, this section is not applicable.
§60.4237(b)	None	This section pertains to emergency engines rated greater than 130-hp and less than 500-hp. Since the engine is less than 130-hp, this section is not applicable.
§60.4237(c)	8.1.12.	This section pertains to emergency engines rated less than 130-hp that were built after July 1, 2008, and do not meet the standards applicable to non-emergency engines. Since the engine is less than 130-hp, was built after the specified date, and does not meet the standards applicable to non-emergency engines (<i>i.e.</i> , Table 1, row 1, 2.0 g/HP-hr of NO _x , 4.0 g/HP-hr of CO, and 1.0 g/HP-hr of VOC), this section is applicable. Therefore, the permittee must install a non-resettable hour meter for the engine.
Compliance Requirements for Manufacturers		
§60.4238	None	This section pertains to manufacturers of SI ICEs rated less than 25-hp. Since the engine does not meet these criteria, this section is not applicable.
§60.4239	None	This section pertains to manufacturers of SI ICEs that combust gasoline. Since the engine does not meet these criteria, this section is not applicable.
§60.4240	None	This section pertains to manufacturers of SI ICEs that are rich burn engines that combust LPG. Since this section applies to manufacturers and the engine LPG is lean burn, this section is not applicable.
§60.4241	None	This section pertains to manufacturers of SI ICEs that are participating in the voluntary certification program or a manufacturer of equipment containing such engines. Since the engine does not meet these criteria, this section is not applicable.
§60.4242	None	This section pertains to manufacturers of SI ICEs. Since the permittee is not a manufacturer, this section is not applicable. Furthermore, no applicable requirement in Subpart JJJJ refers to a requirement in §60.4242; therefore, it is not applicable.
Compliance Requirements for Owners and Operators		
§60.4243(a)	None	This section pertains to owners and operators of SI ICEs manufactured after July 1, 2008, and that must comply with emission standards in §§60.4233(a) through (c). Since the engine is not subject to §§60.4233(a) through (c), but is subject to §60.4233(e), this section is not directly applicable. However, applicable requirements in §60.4243(b) refer to and make applicable certain requirements in §60.4243(a).
§60.4243(b)	8.4.5.	This section is applicable to owners and operators of SI ICEs that must comply with emission standards in §§60.4233(d) or (e). The engine is subject to §60.4233(e), and the engine is certified. Therefore, §60.4243(b)(1) is applicable and has been incorporated into the operating permit. Paragraph (b)(1) states that the permittee must demonstrate compliance according to one of the methods specified in paragraph (a) of §60.4243. The two paragraphs under §60.4243(a) are

Subpart JJJJ	Title V	Discussion
		<p>based upon if a certified engine is, or is not, operated and maintained according to the manufacturer’s emission-related written instructions. The renewal application does not indicate that the engine will be operated and maintained in a non-certified manner; therefore, the first paragraph (§60.4243(a)(1)) is applicable. However, it is permissible under §60.4243(a)(2) to not operate and maintain a certified engine according to the manufacturer’s emission-related written instructions. Therefore, the requirement in §60.4243(a)(2) has been included in the renewal permit. Specifically, only requirement §60.4243(a)(2)(ii) is applicable based upon the horsepower rating of engine LPG. The permit condition is organized as follows:</p> <ul style="list-style-type: none"> • The first paragraph corresponds to §60.4243(b). • The second paragraph (1) corresponds to §60.4243(b)(1). • The third and fourth paragraphs i. and ii. correspond to §60.4243(a)(1) and (2). • The fifth paragraph designated by a bullet, corresponds to §60.4243(a)(2)(ii). <p>A note has been added to the condition stating how the engine is being maintained and operated.</p>
§60.4243(c)	None	This section pertains to owners and operators of SI ICEs that must comply with emission standards in §60.4233(f). Since the engine is not subject to §60.4233(f), this section is not applicable.
§60.4243(d)	8.1.13.	The specific requirements in §§60.4243(d)(1) through (3) have been included in the renewal permit.
§60.4243(e)	None	This section pertains to stationary SI natural gas fired engines and the option to operate the engines using propane. The renewal application does not indicate that the engine combusts natural gas; therefore, this section is not applicable.
§60.4243(f)	None	This section pertains to stationary SI ICEs that are less than or equal to 500-hp and is a non-certified engine or is not operated and maintained according to the manufacturer’s instructions. The engine is certified, and the renewal application does not indicate that the engine will not be operated and maintained according to the manufacturer's written emission-related instructions; therefore, this section for initial performance testing is not applicable.
§60.4243(g)	None	This section pertains to use of air-to-fuel controllers with the operation of three-way catalysts/non-selective catalytic reduction. The engine is not equipped with such control devices; therefore, this requirement is not applicable.
§60.4243(h)	None	This section pertains to owners and operators of SI ICEs with a maximum engine power greater than or equal to 500-hp. Since the engine is rated less than 500-hp, this section is not applicable.

Subpart JJJJ	Title V	Discussion
Testing Requirements for Owners and Operators		
§§60.4244(a) through (g)	None	Applicable requirements in §60.4243(b)(1) make applicable the provisions in §60.4243(a)(1), both of which have been set forth in permit condition 8.4.5. In particular, §60.4243(a)(1) states that if a certified engine is operated and maintained according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. Since all the requirements in §§60.4244(a) through (g) are related to performance testing, none of them are applicable to the engine, unless it is not operated in a certified manner and then testing is required under §60.4243(a)(2)(ii).
Notification, Reports, and Records for Owners and Operators		
§60.4245(a)	8.4.6.	This applicable section has been incorporated into the renewal permit. Though the engine is manufacturer certified, and the renewal application does not indicate that the engine will be operated and maintained in a non-certified manner, the recordkeeping in §60.4245(a)(4) for a certified engine operating in a non-certified manner has been included in the renewal permit in case this scenario occurs in the future as allowed in permit condition 8.4.5.(1) ii.
§60.4245(b)	8.4.7.	This applicable section has been incorporated into the renewal permit.
§60.4245(c)	None	This section applies to engines greater than 500-hp that have not been certified by an engine manufacturer to meet requirements in §60.4231. Since the engine is rated less than 500-hp and is certified, this section is not applicable.
§60.4245(d)	None	This section applies to engines that are subject to Subpart JJJJ performance testing. Since the engine is certified and is operated and maintained according to the manufacturer's emission-related written instructions, performance testing is not applicable.
§60.4245(e)	8.5.1.	This section applies to any engine rated greater than 100-hp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §§60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in §§60.4243(d)(3)(i). This reporting requirement has been included in the permit since the requirements in §60.4243(d) have been retained in permit condition 8.1.13. for the flexibility they afford the permittee.
General Provisions		
§60.4246	None	No permit condition is warranted from this section.
Mobile Source Provisions		
§§60.4247(a) through (c)	None	These sections specify mobile source provisions applicable to manufacturers of SI ICEs. Since the permittee is not a manufacturer, these sections are not applicable.

As discussed under 40 C.F.R. 63 Subpart ZZZZ below, the source will meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart JJJJ. Where each Subpart JJJJ requirement has been incorporated into the renewal permit, the applicable Subpart ZZZZ requirement (*i.e.*, 40 C.F.R. §§63.6590(c) and (c)(3)) has been cited as well. Refer to the Subpart ZZZZ discussion below.

12. **40 C.F.R. 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines.** Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

6S, 7S, 17S, and 18S

The Subpart ZZZZ requirements applicable to Emergency Quench Water Pump Diesel-fired Engines (emission unit IDs: 6S, 7S) and Emergency Diesel-Driven Fire Pumps (emission unit IDs: 17S, 18S) are in the current Title V permit and have been retained in renewal permit section 7.0. with only one modification: the language “and replace as necessary” has been added to condition 7.1.2.b.

LPG

The Subpart ZZZZ requirements applicable to the Liquid Propane Vapor Engine Driven Emergency Generator (emission unit ID: LPG) are incorporated by reference in the current Title V permit. LPG is a stationary RICE at a major source of HAP emissions and is an affected source under §63.6590(a). Specifically, the engine is a *New stationary RICE* due to meeting the criteria in §63.6590(a)(2)(ii). Due to its horsepower rating (126-bhp), the engine does not meet any of the criteria in §63.6590(b) for RICE subject to limited requirements. The engine meets the criteria of §63.6590(c)(3); therefore, the engine LPG must meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart JJJJ for spark ignition engines. No further Subpart ZZZZ requirements apply to the engine. Therefore, 40 C.F.R. 63 Subpart ZZZZ is applicable to the engine LPG. The general permit applies NSPS Subpart JJJJ requirements to the engine. Thus, where each NSPS Subpart JJJJ requirement is incorporated into the renewal permit, the applicable Subpart ZZZZ requirement (*i.e.*, 40 C.F.R. §§63.6590(c) and (c)(3)) has been cited as well. Finally, a streamlining note has been added to each Subpart JJJJ permit condition.

EG-1 and EG-2

The Subpart ZZZZ requirements were applied to the Black Start Emergency Generators (emission unit IDs: EG-1, EG-2) and incorporated by reference in the current Title V permit. Engines EG-1 and EG-2 are stationary RICE at a major source of HAP emissions and are affected sources under §63.6590(a). Specifically, the engines are a *New stationary RICE* due to meeting the criteria in §63.6590(a)(2)(i).

As new emergency stationary RICE rated greater than 500-hp and located at a major source of HAP, the engines meet the criteria in §§63.6590(b)(1) and (b)(1)(i) since the engines do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §§63.6640(f)(2)(ii) and (iii). Therefore, the engines do not have to meet the requirements of Subpart ZZZZ and of Subpart A of part 63 except for the initial notification requirements of §63.6645(f). According to 6/28/2019 technical correspondence, the initial notification was submitted to DAQ on May 26, 2015. For this reason, the initial notification requirement for EG-1 and EG-2 is not included in the renewal permit.

Note that the engines are not *Limited use stationary RICE*, which §63.6675 defines as any stationary RICE that operates less than 100 hours per year. The engines are permitted under General Permit G60-D, which provides for hours of operation up to 500 hours per year (G60-D, section 2.3.1.c.), and a 500-hr/yr operational limit was specified in requirement 5.1.3. of the General Permit G60-D. Therefore, §63.6590(b)(1)(ii) does not apply and the engines are not *Limited use stationary RICE* as stated in the Engineering Evaluation for G60-C057A.

13. **40 C.F.R. 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.** The requirements applicable to the auxiliary boiler Aux 1 have been retained in the renewal permit in Section 5.0. However, the following changes have been made in the renewal permit with respect to Subpart DDDDD:

- a. **Compliance Date Authority.** Current permit condition 4.1.13. sets forth the compliance date, which has passed. The cited underlying permit requirement 5.1.1.g. is specifically applicable to the initial tune-up, and so the NSR permit requirement has been excluded from the citation of authority for renewal permit condition 5.1.5. The compliance date requirement has been retained in the permit since the permittee agreed only with removing condition 5.1.1.g.
- b. **Initial tune-up.** Current permit condition 4.1.14. sets forth the requirements for the initial and periodic tune-ups. The NOCS states that the initial tune-up has been completed. Therefore, the last of three bullet statements at the end of current condition 4.1.14. has been removed. Refer to renewal permit condition 5.1.6. The corresponding authority §63.7510(e) has been removed from the citation of authority. The permittee agreed with this change in 6/28/2019 technical correspondence.
- c. **Notification of Compliance Status.** The requirement to submit the “Notification of Compliance Status” (NOCS) containing results of the initial compliance demonstration (i.e., 40 C.F.R. §63.7530(f)) for Aux 1 was satisfied when the report was received by DAQ on February 22, 2016. Since this requirement has been satisfied and there are no ongoing requirements associated with the NOCS, the requirements in current permit condition 4.5.7. are not included in this renewal. The permittee agreed with this change in 6/28/2019 technical correspondence.
- d. **Revision of Subpart DDDDD.** This regulation was revised during the term of the current operating permit as recorded in the Federal Register at 80 FR 72806 on November 20, 2015. The subpart sections listed in the following table contain applicable requirements that are in the current permit that have been retained for the renewal permit. Only the applicable sections have been listed, but each revision does not necessarily result in a revision to a permit condition as explained in the Description of Change. The requirements in the renewal permit have been revised, as required, to reflect the content of 80 FR 72806 as detailed in the following table.

Subpart DDDDD Affected Section	Title V Condition	Description of Change
§63.7540(a)(10)(i)	5.1.6.(i)	The language of this condition has been revised.
§63.7540(a)(10)(vi)	None Affected	Though the previous version of this subpart specified “annual report” when the 2014 operating permit was written, the permit writer excluded “annual” since Aux 1 is subject to the 5-year frequency for tune-ups. Therefore, no change is necessary for the renewal permit condition 5.1.6.(vi).
§63.7540(a)(12)	None Affected	This subpart revision added the last statement to §63.7540(a)(12) that pertains to use of an oxygen trim system to reduce the tune-up frequency to once every 5 years. The tune-up frequency is 5 years for boiler Aux 1 because it is a <i>Limited-use boiler</i> as defined in §63.7575 – not due to using an oxygen trim system. Since this new last statement is not applicable, it has not been added to the renewal permit condition 5.1.6.

Subpart DDDDD Affected Section	Title V Condition	Description of Change
§63.7545(e)	None Affected	This subpart revision affected the NOCS requirement, which has been removed from the permit for the reasons discussed above. Therefore, no change is necessary for the renewal permit.
§63.7550(b)	None Affected	This subpart revision did not affect requirements (1) through (5) in renewal permit condition 5.5.5.
§63.7550(c)(5)(xvii)	5.5.5.a.(xvii)	This requirement for a statement by a responsible official was inadvertently excluded from the 2014 renewal permit but has been included for this renewal. There is no Subpart DDDDD revision associated with this correction.
§63.7550(h)(3)	5.5.5.	This subpart revision affects the language in the last paragraph of permit condition 5.5.5. The entire paragraph has been replaced with the regulation language.
§63.7555(a)(3)	5.4.3.(3)	<p>This subpart revision added paragraph (3) to §63.7555(a). Since the boiler Aux 1 is a limited-use boiler, this requirement is applicable and has been added to the renewal permit. It has been noted that the last portion of §63.7555(a)(3) regarding fuel use records is identical to the applicable requirement in §63.7525(k). Rather than writing a redundant condition for §63.7525(k), it has been eliminated and §63.7525(k) has been added to the citation of authority for condition 5.4.3.</p> <p>The first statement in 5.4.3. has been changed to paragraphs (1), (2), and (3) even though the corresponding regulation language was not revised.</p>
§63.7555(i) (removed)	None	The requirement to maintain records of date, time, occurrence, and duration of each startup and shutdown formerly in §63.7555(i) has been relocated to §63.7555(d)(9), and §63.7555(i) no longer exists. However, the requirements in §63.7555(d) are applicable to boilers and process heaters that are subject to an emission limit in Tables 1, 2, or 11 through 13 of Subpart DDDDD. The boiler Aux 1 is not subject to a Subpart DDDDD emission limit; therefore, §63.7555(d)(9) is not applicable.
§63.7555(j) (removed)	None	The requirement to maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown formerly in §63.7555(j) has been relocated to §63.7555(d)(10), and §63.7555(j) no longer exists. However, the requirements in §63.7555(d) are applicable to boilers and process heaters that are subject to an emission limit in Tables 1, 2, or 11 through 13 of Subpart DDDDD. The boiler Aux 1 is not subject to a Subpart DDDDD emission limit; therefore, §63.7555(d)(10) is not applicable.

14. **40 C.F.R. Part 63, Subpart UUUUU - National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units.** This regulation, also known as the “Utility Mercury and Air Toxics (MATS)” rule, applies to coal- and oil-fired EGUs as defined in §63.10042 of 40 C.F.R. Part 63. The Utility MATS rule establishes national emission limitations and work practice standards for mercury, acid gases, and filterable particulate matter, as well as requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards. The requirements of this regulation applicable to the main steam generators Unit 1 and Unit 2 were incorporated into the current operating permit via a significant modification (SM01) issued by the Director on July 8, 2016. Subpart UUUUU has been revised twice since then as recorded in the Federal Register as follows:

- ⇒ 82 FR 16739, April 6, 2017 – MATS Electronic Reporting Requirements²
- ⇒ 83 FR 30883, July 2, 2018 – Remaining Requirements for MATS Electronic Reporting Requirements³

The last revision changed the same sections and paragraphs as those revised in the previous revision. Consequently, the requirements in the renewal permit have been revised to reflect 83 FR 30883, as detailed in the following table.

Subpart UUUUU	Title V Condition	Description of Change
§63.10021(e)(9)	4.1.9.(9)	The language has been changed from “until April 16, 2017. After April 16, 2017” to “through June 30, 2020. On or after July 1, 2020”.
§63.10031(f)	4.5.13.	The introductory text “On or after April 16, 2017” has been changed to “On or after July 1, 2020”.

15. **Phase II Acid Rain Permit.** On March 12, 2019, the Director approved the current Acid Rain Permit # R33-3948-2022-5A, which is effective January 2, 2018, through December 31, 2022. The current Acid Rain Permit has been included in the renewal permit as Appendix F.

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§5-2.4.b. 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.

² <https://www.govinfo.gov/content/pkg/FR-2017-04-06/pdf/2017-06884.pdf>

³ <https://www.govinfo.gov/content/pkg/FR-2018-07-02/pdf/2018-14308.pdf>

- 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.** 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: October 11, 2019
Ending Date: November 12, 2019

Point of Contact

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

Denton B. McDerment, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478
denton.b.mcderment@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)

Public Comments

Mr. Greg Wooten of American Electric Power Service Corporation submitted the following comments via e-mail on November 11, 2019. The DAQ response follows each comment.

1. Permit condition 3.5.6 has been updated to include the WVDEP email address for electronic submittal of Title V semi-annual monitoring reports. However, the permit condition does not reference the email address for submittal of the semi-annual monitoring reports to USEPA Region III. Nevertheless, the Title V annual compliance certification form found on the WVDEP internet site still indicates that semi-annual reports need to be submitted to USEPA Region III. Can clarification be provided concerning (1) whether Title V semi-annual monitoring reports are still required to be submitted to USEPA Region III in conjunction with submittal of the Title V annual compliance certification, and (2) is it acceptable to submit the electronic copies of the Title V semi-annual reports to USEPA at the email address referenced in 3.5.5?

Response: The Semi-Annual Monitoring Report for the 1st Half and the Semi-Annual Monitoring Report for the 2nd Half are required to be submitted electronically to USEPA in conjunction with submittal of the Title V Annual Compliance Certification using the e-mail address specified in the Annual Compliance Certification form. It is acceptable to submit the electronic copies of the Title V semi-annual reports to USEPA at the e-mail address referenced in draft permit condition 3.5.5. since that e-mail address is the same as the address specified in the Annual Compliance Certification form.

2. Permit conditions in Section 8 have been footnoted with a reference to general permit G60-D. The version of general permit G60 applicable to the Mitchell Plant equipment was G60-C. While there may not be substantive changes in G60-D, relative to G60-C, we believe the precedence of subjecting the source(s) to new or revised permit requirements without the permittee requesting a modification to existing permit conditions is ill-advised, if not improper procedurally. The Title V permit conditions should be consistent with and footnoted by references to permit conditions found within G60-C. References to G60-D should be removed and all Title V permit conditions should only reference applicable requirements found in G60-C and/or the applicable federal or state regulation. We have attempted to identify permit conditions inconsistent with this comment in subsequent comments.

Response: The purpose of the modification of General Permit G60-C that resulted in current General Permit G60-D is to allow for the incorporation by reference of New Source Performance Standards in 40 C.F.R. 60 Subparts IIII and JJJJ, and the NESHAPs-MACT in 40 C.F.R. 63 Subpart ZZZZ. Incorporating these regulations by reference allows this General Permit to remain viable as these regulations are amended. General Permit G60-D went through public notice prior to being issued. The public notice appeared in the *Charleston Gazette, Dominion Post* (Morgantown), *Herald Dispatch* (Huntington), *Intelligencer* (Wheeling), *Parkersburg News, Exponent/Telegram* (Clarksburg), *Journal* (Martinsburg), *Herald Record* (Doddridge County), *Wetzel Chronicle* (Wetzel County), *Moundsville Daily Echo* (Marshall County), and *The State Register* consistent with other General Permit public notices. General Permit G60-D was issued by the Director on May 9, 2018, and page 2 of the permit states that Class II General Permit G60-D supersedes and replaces General Permit G60-C issued on May 21, 2009. The registration G60-C057A remains in effect for Emission Unit IDs LPG, EG-1, and EG-2. Since the registration G60-C057A has not been updated, its number has not been changed for this renewal. Based upon these facts, the affected renewal permit conditions cite as authority both the registration G60-C057A and General Permit G60-D. No changes have been made in the final permit based upon this comment.

3. The table in permit condition 8.1.1 contains a typo. The annual VOC emissions for EG-2, and accordingly, the total annual VOC emissions represented in the table are incorrect. The previous Title V permit correctly listed EG-2 annual VOC emissions as 0.30 tons/year and the total annual VOC emissions for the table as 0.60 tons/year. It appears that the typo is tied to the general permit registration for EG-2. While the permit application indicated that the annual VOC emissions for EG-2 would be limited to 0.30 tons/yr, the summary table in the general permit registration contained a typo indicating the emissions would be 0.03 tons/yr. Further support for correcting this typo is provided by the fact that the hourly emissions are 1.18 lb/hr. Using the operational time of 500 hours per year, as indicated in the footnote to the table in permit condition 8.1.1, the annual emissions can be calculated as 0.30 tons/year. i.e. $(1.18 \text{ lb/hr} * 500 \text{ hrs/yr}) / (2000 \text{ lbs/ton}) = 0.30 \text{ tons/yr}$.

Response: The permit application and the Engineering Evaluation for G60-C057A have been reviewed, and they confirm the supporting information provided in the comment and that the annual VOC potential emissions are 0.30 tons/year for EG-2. Therefore, the corrections have been made in the final permit.

4. Permit condition 8.1.3 does not appear to be found in G60-C. This is an example of a new permit condition being imposed upon the source by applying new permit conditions from G60-D to sources that were permitted under G60-C. This permit condition should be deleted unless reference can be made to applicable regulatory requirements or permit conditions that were in G60-C.

Response: General Permit G60-D went through public notice prior to being issued on May 9, 2018, and supersedes and replaces General Permit G60-C. The facility is no longer subject to General Permit G60-C but is instead subject to General Permit G60-D. Requirement 5.1.7. in General Permit G60-D is applicable; therefore, it has been included in the renewal permit as condition 8.1.3. No changes have been made in the final permit based upon this comment.

5. Permit condition 8.1.4 footnotes should reference the equivalent condition in G60-C. Accordingly, the portion of the permit condition that states “Tanks are to be used for fuel storage for the emergency generators (EG-1, EG-2) only” does not appear to be found in G60-C and should be deleted.

Response: General Permit G60-D went through public notice prior to being issued on May 9, 2018, and supersedes and replaces General Permit G60-C. The facility is no longer subject to General Permit G60-C but is instead subject to General Permit G60-D. Requirement 6.1.1. in General Permit G60-D is applicable; therefore, it has been included in the renewal permit as condition 8.1.4. No changes have been made in the final permit based upon this comment.

6. Permit condition 8.1.5 applies to manufacturers of a specific type and model year engine. This permit condition is not applicable to the owner/operator and should be deleted from the permit.

Response: Please refer to the discussions of §60.4202 and §60.4205(b) in Table III of the draft Fact Sheet. As determined therein, 40 C.F.R. §60.4205(b) is applicable to engines EG-1 and EG-2. This section requires the engines to comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants. §60.4202(b) is applicable since the engines have a maximum power greater than 3,000-hp. Specifically, applicable §60.4202(b)(2) requires manufacturer certification to the emission standards specified for new nonroad CI engines for the same model year and maximum engine power in 40 CFR §89.112 and 40 CFR §89.113 for all pollutants. Table 1 at §89.112(a) specifies the applicable emission standards, which have been included in renewal permit condition 8.1.5. No changes have been made in the final permit based upon this comment.

7. Permit condition 8.1.9 appears to be incomplete. For example, as drafted, 8.1.9(2) only allows for maintenance and readiness testing as part of the allowable 100 hours of operation under this permit condition. The Federal regulation actually allows for other situations that fall under the 100 hour category. While it’s not likely that the engine could be used under these provisions, it seem appropriate that the full flexibility of the federal regulation should be available to these engines. The permit should reflect the full flexibility of the federal regulation requirements.

Response: Please refer to the discussion of §60.4211(f) in Table III of the draft Fact Sheet for why certain requirements in §60.4211(f)(2)(ii) and (2)(iii), and §60.4211(f)(3)(i) were excluded from the draft permit. Nevertheless, per your request, all requirements in §60.4211(f) have been incorporated into final renewal permit condition 8.1.9.

8. Permit Conditions found in section 8.4 that are not tied directly to the federal regulation for the engines or should be referenced to the correct permit condition in G60-C rather than G60-D. Again, if new permit conditions were added to G60-D that were not found in G60-C, the sources at the Mitchell facility should not be subjected to these new requirements.

Response: The comment does not provide the specific condition numbers. As stated above, General Permit G60-D went through public notice prior to being issued on May 9, 2018, and supersedes and replaces General Permit G60-C. The facility is no longer subject to General Permit G60-C but is instead subject to General Permit G60-D. Conditions in Section 8.4 of the draft permit that are requirements in General Permit G60-D are applicable for the reasons determined in Table G60-D of the draft Fact Sheet; therefore, the requirements have been included in the renewal permit. No changes have been made in the final permit based upon this comment.

9. We remain opposed to adding section 9.0 of the for a small oil fired comfort heating furnace located at the Mitchell Plant ash landfill building. While we agree that the 45 CSR 2 specifically exempts small fuel burning sources such as this comfort heating furnace from the majority of the regulation, we also believe that it is excessive to include such sources with such insignificant emissions and minimal requirements. Further, there is an apparent inconsistent approach within WVDEP DAQ including these types of sources under the applicability of 45 CSR 2 in Title V operating permits.

Response: The Landfill Building Furnace CB-3250 is subject to the applicable ten (10) percent opacity limitation and the compliance methodology in 45CSR§§2-3.1. and 3.2. The rule does not exempt the furnace from these standards. A Title V permit must include all applicable requirements; therefore, the requirements have been incorporated into the renewal permit. The exemption from 45CSR2 monitoring, testing, recordkeeping, and reporting has been included as condition 9.1.3. to call attention to these facts. Nevertheless, Title V permits must include monitoring, testing, recordkeeping, and reporting for practical demonstration of compliance with the applicable standard or limitation; therefore, the Method 9 monitoring at the discretion of the Director has been included as permit condition 9.2.1. No changes have been made in the final permit based upon this comment.

U.S. EPA Comments

Cynthia H. Stahl, PhD of U.S. EPA Region III submitted the following comments via e-mail on November 12, 2019. The DAQ response follows each comment.

1. **Nameplate capacity/Size of the EGUs:** As described in the WVDEP Fact Sheet, the Kentucky Power – Mitchell plant is an electric generating unit (EGU) with 2 coal-fired steam generators rated at 816 MW nameplate capacity. This facility is subject to 40 CFR Part 63 Subpart UUUUU (National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-fired Electric Utility Steam Generating Units). There appears to be conflicting information regarding the size of the 2 coal-fired steam generating units within the document provided. Page 7 of the Fact Sheet indicates that these units have a nameplate capacity of 816 MW. However, the cover of the Fact Sheet stipulates a design capacity of 7020 mmBTU/hr each, which converts to 2057 MW each. Furthermore, in order to resolve this discrepancy, a check with a 2018 Kentucky Power news release available online indicates that the total capacity at the Mitchell plant is 1560 MW, which converts to 780 MW each for the two units. Please clarify and consistently use the actual nameplate/design capacity for Units 1 and 2 within all the related documents.

Response: The heat input capacity of each boiler is 7,020 MMBtu/hr. The units conversion to 2,057 MW is an equivalent heat input to the boiler. As such, this is gross heat input, which neither accounts for thermal inefficiencies of the boiler and turbine, the mechanical inefficiencies of the turbine and generator, nor the power consumed by the facility to run auxiliary systems. Therefore, the facility electrical output is less than the equivalent heat input administered to the boilers. Each unit's generator has a nameplate capacity of 816.3 MW, which is the gross electrical output capacity of the generator. However, the 780 MW is the net electrical output available for sale after deducting the facility's consumption for powering auxiliaries. The boiler design capacity of 7,020 MMBtu/hr will be unaltered in the emission units table (section 1.1. of the permit) and continue to be used to calculate the PM limit under 45CSR§2-4.1.a. (permit condition 4.1.4.a.). Also, the 816.3 MW will remain in the Fact Sheet discussion of CSAPR.

2. **Clarity of the applicable filterable particulate matter (PM) emission limit:** As the proposed Title V permit indicates, both the WVDEP regulation 45 CSR 2 and the 40 CFR Part 63 Subpart UUUUU (MATS) requirements apply to Units 1 and 2 at this facility. Both of these requirements have PM emission limits but expressed in slightly different ways, which makes it difficult to determine which is the more stringent (and hence, governing) PM standard. Section 4.1.s of 45 CSR 2 stipulates that the PM emission limit is 0.05 x total design heat capacity (in mmBTU/hr), which if 7020 mmBTU/hr is correct for each of Units 1 and 2, would require that these units meet a 351 lbs PM/hr emission limitation. The PM limit for the MATS rule is 0.03 lbs/mmBTU using a 30 operating day rolling average. Please clarify how compliance is assessed under each of these PM emission requirements.

Response: Compliance is assessed for each emission limitation as follows:

Compliance with the 45CSR2 limit (702 lb/hr combined for both Unit 1 and Unit 2) in condition 4.1.4.a. is demonstrated by the tiered periodic testing prescribed by 45CSR2 that is set forth in permit condition 4.3.1.

Compliance with the 40 C.F.R. 63 Subpart UUUUU limit (0.030 lb/MMBtu) in condition 4.1.4.b. is demonstrated through quarterly stack tests. Subpart UUUUU prescribes testing and recordkeeping in conditions 4.3.3., 4.3.4., 4.3.6., 4.3.7., 4.3.9., 4.3.11., 4.3.12., 4.3.17., and 4.4.8. through 4.4.13. Condition 4.3.12. requires that the results of the quarterly stack testing be calculated in units of the applicable emission standard, which is pounds per million Btu. Therefore, the results for the Subpart UUUUU testing is not to be converted to units in weight per unit time to demonstrate compliance.

Since the two PM emission limits have different units, the performance testing prescribed by the rules are different, the performance testing is required at different frequencies, and the federal requirement must be calculated in units of its standard, the two emission limits have been written separately.

3. **Citation error in Section 4.2.2 of the Title V permit:** In the Monitoring requirements section 4.2.2, there is a citation to 4.1.7.b of the Title V permit but this section does not exist.

Response: The reference to 4.1.7.b. has been changed to 4.1.5.b.

4. **Start up, Shutdown and Malfunction (SSM):** Understanding that SSM issues are still being litigated in the courts, the proposed Title V provisions may need to be revisited for this facility when these issues are resolved.

Response: SSM revisions may be addressed at a future date under appropriate Title V permitting procedures. However, no change is currently necessary for the proposed renewal permit.

5. **Continuous Opacity Monitoring System (COMS) and Continuous Emissions Monitoring System (CEMS):** On page 87 of the proposed permit, under the requirements pertaining to 45 CSR 2, 8.a.1, there is a b. provision that would allow the Mitchell plant to “reserve[e] the right to use other appropriate method that would produce credible data” in lieu of the COMS. The applicable regulations stipulate the means to determine compliance. Therefore, if the COMS is a necessary requirement for this facility, it is not permissible to provide such an alternative and unspecified means to avoid compliance.

On page 95 of the proposed permit, there is similar language regarding “the right to use other appropriate methods that would produce credible data.” If the CEMS is a necessary requirement for this facility, it is not permissible to provide such an alternative and unspecified means to avoid compliance.

Response: Continuous opacity monitors (COMS) are not required on fuel burning units which employ wet scrubbing systems for emission control, as provided in 45CSR§2-3.2. Since the rule does not stipulate that COMS is the means to determine compliance, the concern expressed in this comment is relieved. Yet the permittee has elected and historically used COMS as provided in the monitoring plan which has been approved by WVDAQ. If the permittee did not elect to utilize COMS, another credible monitoring method would be necessary. The permittee has provided for another credible monitoring method in case the COMS is not available. Section 2.22 of the operating permit allows for any lawful credible evidence to be used to establish compliance, and the permittee’s monitoring plan utilizes this provision. The monitoring plan was approved in the past and there are no changes to the monitoring plan for this renewal, except for the Facility Environmental Contact. For the 45CSR10 SO₂ monitoring plan, the permittee could utilize fuel sampling and analysis as provided in 45CSR§10-8.2.c. However, CEMS is required under 40 C.F.R. 63 Subpart UUUUU. As with PM, the permittee’s SO₂ monitoring plan utilizes the provisions in Section 2.22 for any lawful credible evidence to demonstrate compliance. As with PM, the SO₂ monitoring plan was approved in the past and there are no changes to the monitoring plan for this renewal, except for the Facility Environmental Contact. Finally, on page 95 of the proposed permit, the permittee acknowledges that any revised monitoring plan will become effective only after approval by WVDAQ.