

# Fact Sheet



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

Permit Number: **R30-10700182-2017**  
Application Received: **June 13, 2016**  
Plant Identification Number: **03-054-10700182**  
Permittee: **The Chemours Company FC, LLC**  
Facility Name: **Washington Works**  
Business Unit: **Power and Services Support (Part 10 of 14)**  
Mailing Address: **P.O. Box 1217, Washington, WV 26181-1217**

*Revised: N/A*

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Physical Location: Washington, Wood County, West Virginia  
UTM Coordinates: 422.27 km Easting • 4,346.57 km Northing • Zone 17  
Directions: Route 68 west from Parkersburg to intersection of Route 892. Continue west on Route 892 with the plant being on the north side about one mile from the intersection of Routes 68 and 892.

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### Facility Description

Power and Services manages and operates the plant infrastructure to support the operating business units. As part of these operations, Power and Services operates both gas and coal fired boilers to produce steam for on-site use. Power and Services personnel also operate an industrial wastewater treatment facility, a sanitary wastewater treatment facility, an air compressor system to supply plant air, and a water treatment facility to supply treated water for both process uses and sanitary uses on-site.

## Emissions Summary

<b>Power and Service Support Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions<sup>1</sup></b>	<b>2016 Actual Emissions<sup>3</sup></b>
Carbon Monoxide (CO)	740	66.8
Nitrogen Oxides (NO <sub>x</sub> )	1,600	884
Particulate Matter (PM <sub>2.5</sub> )	34	2.32
Particulate Matter (PM <sub>10</sub> )	89	5.51
Total Particulate Matter (TSP)	450	112
Sulfur Dioxide (SO <sub>2</sub> )	10,000	2,526
Volatile Organic Compounds (VOC)	670	92.3
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions<sup>1</sup></b>	<b>2016 Actual Emissions</b>
Formaldehyde	25	0.44
Hydrogen Chloride	67.85	3.19 × 10 <sup>-6</sup>
Hydrogen Fluoride	18.54	7.28
Methanol	18.42	4.16
Toluene	17	5.52
Aggregate HAPs <sup>2</sup>	154.3	20
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions<sup>1</sup></b>	<b>2016 Actual Emissions</b>
Ammonia	7.5	0.43

<sup>1</sup> Except for Hydrogen Chloride (HCl), Hydrogen Fluoride (HF), and Methanol, the potential emissions values are from the Facility-Wide Emissions Summary in the renewal application (pp. 22-24 of 256). The facility-wide PTEs for HCl and HF were computed by summing the emission unit-specific PTEs listed in the application Attachments E of the coal-fired boilers P02, P03, P04, P05, and P06. The facility-wide PTE for Methanol was computed by summing the emission unit-specific PTEs listed in the Attachments E of the WWTP tanks P201, P202, P205-1, P206, P207, P208, P209, P210, P211, P212, P214, and P215.

<sup>2</sup> The potential aggregate HAPs value is the sum of all individual HAPs listed in the renewal application plus PTEs of three HAPs not listed in the Facility-Wide Emissions Summary in the renewal application, which are HCl, HF, and Methanol. The individual HAPs listed in the table above are those with potential emissions at least 10 tpy. There are forty-three other individual HAPs listed in the application less than 10 tpy, and forty of those are each less than 0.1 tpy.

<sup>3</sup> Actual emissions are from the State and Local Emissions Inventory System (SLEIS) and represent emissions for calendar year 2016. Specifically, the data for Power and Service Support was extracted from the Summary Report of Total Emissions by Emission Unit.

### Title V Program Applicability Basis

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, The Chemours Company FC, LLC's Power and Service Support (Part 10 of 14) 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	Opacity and PM limits for fuel burning units
	45CSR6	Open burning prohibited.
	45CSR7	PM and Opacity limits for manufacturing sources
	45CSR10	Control of emissions of sulfur oxides
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits to construct/modify
	45CSR16	Standards of performance for new stationary sources pursuant to 40 CFR 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.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. 60, Subpart Db	NSPS for Industrial-Commercial-Institutional Steam Generating Units
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63, Subpart ZZZZ	RICE MACT
	40 C.F.R. 63, Subpart DDDDD	Boiler MACT for major sources of HAP
	40 C.F.R. Part 64	Compliance Assurance Monitoring (CAM)
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR27	To Prevent and Control the Emissions of Toxic Air Pollutants

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 (if any)
R14 - 14	01/02/2002	
R13-3223	12/8/2014	
R13-2654D	9/17/2015	

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**

1. **45CSR2 and 45CSR10 Stack Testing Updates.** Permit conditions 4.3.1., and 4.3.3. include testing dates that have been updated for this renewal permit based upon the information provided by the permittee in 3/29/2017 technical correspondence which is summarized in the table below.

Em. Unit	Description & DHI in MMBtu/hr	Em. Pt. ID	Last Test Date <sup>1, 2</sup>	Measured PM Emission Rate (lb/hr)	Percent of PM Limit	PM Test Cycle	Measured SO <sub>2</sub> Emission Rate (lb/hr)	Percent of SO <sub>2</sub> Limit	SO <sub>2</sub> Test Cycle
P02	No. 2 Boiler 64.2	475	2/24/2016	0.27	2% of 17.22 pph	Cycle 3	75.8	38% of 199.02 pph	Once/year
P03	No. 3 Boiler 94	476	4/13/2016	0.26	2% of 27.25 pph	Cycle 3	155	46% of 678.9 pph	Once/year
P04	No. 4 Boiler 125		2/23/2016	0.27		Cycle 3	155		Once/year
P05	No. 5 Boiler 181	477	4/14/2016	0.28	2% of 27.25 pph	Cycle 3	384	61% of 1308.2 pph	Once/year
P06	No. 6 Boiler 241		4/15/2016	0.29		Cycle 3	411		Once/year

<sup>1</sup> The test dates are the same for PM and SO<sub>2</sub>.

<sup>2</sup> According to 3/29/2017 technical correspondence, Boilers 2, 4, and 6 were tested during the last week of February 2017 for PM and SO<sub>2</sub>, but the results were not available at the time of writing the draft/proposed renewal permit. A note to this effect has been added to permit conditions 4.3.1. and 4.3.3.

According to 45CSR§2A-3.1.b., weight emission testing for PM would not be required for No. 2 and No. 3 Boilers since each unit is rated less than 100 MMBtu/hr. However, since the 40 C.F.R. Part 64 CAM Plan requires PM testing (cf. permit condition 4.3.5.), the No. 2 and No. 3 Boilers will remain in the last table in permit condition 4.3.1.

The resultant percentages of the SO<sub>2</sub> limit from emission points 475 and 476 would allow the permittee not to perform stack testing as prescribed by the first table in condition 4.3.3. However, according to 4/5/2017 technical correspondence, the permittee elects to test on an annual basis because of the sulfur content of the coal received from its vendors. With the variability that the permittee finds purchasing coal on the spot market, the permittee cannot guarantee that the percentage would not exceed 90% of the factor for Boilers 2, 3, and 4.

2. **45CSR2 and 45CSR2A Monitoring Plan.** The permittee included a revised 45CSR2/2A monitoring plan with the renewal application. The permittee had previously submitted the plan under its cover letter dated May 20, 2016, which stated that the permittee revised the plan on May 5, 2016. The permittee requested approval of the plan in the letter. The substantial change in the revision is to transition from a “Non-COMS” plan to a “COMs plan.” This change was driven by the use of the continuous opacity monitors (COMs) for compliance purposes associated with 40 C.F.R. 63 Subpart DDDDD (“Boiler MACT”). In the May 20, 2016 letter, the permittee requested that the revised plan be incorporated into the renewal operating permit. This writer contacted Mrs. Rebecca Johnson of WVDAQ’s Compliance and Enforcement (C&E) section, who informed the writer that the submitted plan is acceptable.

This writer noted that the submitted plan did not include the Excursion and Monitoring Plan Performance report in the Reporting section. After bringing this to the attention of the permittee, the permittee informed the writer in 4/10/2017 technical correspondence that this was an oversight. The Excursion and Monitoring Plan Performance report has been included in the revised plan. It should be noted that this report is only required when there is an excursion.

The revised plan, with Excursion and Monitoring Plan Performance reporting requirement, has been incorporated into the renewal permit as Appendix A. Since C&E stated that the plan is acceptable as submitted, the approval date in Appendix A is May 23, 2016, the date when the plan was received by WVDAQ.

3. **45CSR13, Permit No. R13-2654D.** The purpose of this Class I administrative update, Permit No. R13-2654D, was to transfer equipment and permit requirements from R13-2692A to R13-2654D so that Permit No. R13-2692A may be retired. Section 4.0 of R13-2692A had emission limits and other requirements for units during periods designated as commercial production. These units no longer are used for commercial production and are now only for research and development. As a result, those commercial production requirements no longer apply. While the Power and Service Support segment is subject to requirements in R13-2654D, not all of the requirements in the underlying permit have been incorporated into the Title V permit renewal for reasons discussed in the table below.

R13-2654D	Title V	Discussion
<b>Laboratory Hoods</b>		
4.0	None	According to technical correspondence dated 3/29/2017, the laboratory activities are included in the Research and Development Title V permit (Part 11 of 14) and should not be double counted in the Power and Services permit (Part 10 of 14), even though Power and Services is subject to permit R13-2654D. This writer confirmed that the R&D Title V permit contains the requirements in section 4.0 of R13-2654D. The correspondence further stated that the WWTP requirements in Section 5.0 of R13-2654D have been retained in the Power and Services operating permit to reflect the division of management responsibility for the areas. For these reasons, none of the requirements in Section 4.0 of R13-2654D have been included in the renewal operating permit.

R13-2654D	Title V	Discussion
<b>Wastewater Treatment Plant</b>		
5.1.1.	8.1.1.	The requirement is included in the current permit and has been retained in the renewal permit.
5.1.2.	8.1.2.	The requirement is included in the current permit and has been retained in the renewal permit.
5.1.3.	8.1.3.	The requirement is included in the current permit and has been retained in the renewal permit.
5.1.4.	8.1.4.	The requirement is included in the current permit and has been retained in the renewal permit.
5.1.5.	8.1.5.	The requirement is included in the current permit and has been retained in the renewal permit.
5.1.6.	None	Since only section 5.0 of the underlying permit has been included in the Power and Services Title V permit (see discussion of above concerning 4.0 of the underlying permit), then this requirement 5.1.6. applies only to any control device utilized with the WWTP. None of the WWTP emission units are equipped with an APCD; therefore, this requirement for operation and maintenance of APCDs is not applicable and has been excluded from the renewal permit.
5.1.7.	None	This requirement is duplicate of the preceding requirement 5.1.6. and has been excluded from the renewal permit.
5.2.1.	8.2.1.	The requirement is included in the current permit and has been retained in the renewal permit.  In the application, the permittee requested changing “total flow rate” to “total feed forward flow rate”. However, since this requirement is directly from the underlying permit, the change cannot be made using Title V permitting procedures. No change will be made to the requirement.
5.2.2.	8.2.2.	The requirement is included in the current permit and has been retained in the renewal permit.
5.3.1.	8.3.1.	The requirement is included in the current permit and has been retained in the renewal permit.
5.3.2.	8.3.2.	The requirement is included in the current permit and has been retained in the renewal permit.
5.4.1.	3.4.1.	The requirement is included in the current permit and has been retained in the renewal permit.
5.4.2.	None	Same rationale as above for underlying requirement 5.1.6.
5.4.3.	None	Same rationale as above for underlying requirement 5.1.6.
5.4.4.	8.4.1.	The requirement is included in the current permit and has been retained in the renewal permit.  In the application, the permittee requested changing “1-hour rolling average” to “1-hour average”. However, since this requirement is directly from the underlying permit, the change cannot be made using Title V permitting procedures. No change will be made to the requirement.

R13-2654D	Title V	Discussion
5.4.5.	8.4.2.	The requirement is included in the current permit and has been retained in the renewal permit.  In the application, for sub-condition 8.4.2.b., the permittee requested changing “Daily emission calculations will be performed no more than 30 days from the date in which the sample was taken” to “Daily emission calculations for each month will be performed by the 15 <sup>th</sup> day of the following calendar month”. However, since this requirement is directly from the underlying permit, the change cannot be made using Title V permitting procedures. No change will be made to the requirement.
5.4.6.	8.4.3.	The requirement is included in the current permit and has been retained in the renewal permit.
<b>Research and Development Activities</b>		
6.0	None	According to technical correspondence dated 3/29/2017, the research and development (R&D) activities are included in the Research and Development Title V permit (Part 11 of 14) and should not be double counted in the Power and Services permit (Part 10 of 14), even though Power and Services is subject to permit R13-2654D. This writer confirmed that the R&D Title V permit contains the requirements in section 6.0 of R13-2654D. For these reasons, none of the requirements in Section 6.0 of R13-2654D have been included in the renewal operating permit.

4. **45CSR30 and Title V Operating Permit Reporting Requirements.** With respect to this rule, the following items have been addressed in this renewal permit:
- a. The content of permit conditions 3.5.3., 3.5.5., and 3.5.6. has been modified to include new instructions and e-mail addresses for electronic submittal of information specified in the conditions.
  - b. In the application, the permittee requested deleting permit condition 5.2.3., stating that there is no requirement to perform visible emission readings on natural gas boilers. This requirement has been in the operating permit since the initial permit was issued in 2003. The frequency is only once per month, and it is only Method 22 (VEs or no VEs) and no Method 9 unless VEs are observed. The authority to require the monitoring is 45CSR§30-5.1.c. For these reasons, the requested deletion has not been made for this renewal permit.
  - c. In the application, the permittee included an Appendix E, which is a table entitled “Emission Units Idled”. The emission units in the table are P130E, P131E, P701, P701-1, P701-2, P701-3, P701-4, and P843. Except for P130E and P131E, none of the emission units are included in the current Title V permit; therefore, no change is required for these units. The permittee confirmed in 3/29/2017 technical correspondence that P130E and P131E are the sorbent silos which are still in use. Therefore, no changes have been made for any of the emission units listed in Appendix E of the renewal application.
  - d. Current permit condition 4.4.4. was inadvertently left from a previous modification of the operating permit. The condition referred to VEs and Methods 9 observations conducted in accordance with 4.2.2. Instead of deleting 4.4.4., it has been revised to refer to a new monitoring condition established as condition 4.2.16. for Method 9 observations in the case when COMS is out of control as described in condition 4.2.10.(6).

5. **40 C.F.R. 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.** This subpart is applicable to the natural gas-fired boiler P31 and the requirements are in the current operating permit section 5.0. However, several of the current conditions include outdated regulation language, which has been updated for this permit renewal. The changes, which do not affect any substantive requirement, are detailed in the table below.

Subpart Db	Title V	Discussion
§60.48b(b)(1)	5.2.2.a.	<ul style="list-style-type: none"> <li>• The language “continuous monitoring system” has been replaced with “CEMS”.</li> <li>• The language “nitrogen oxides” has been replaced with “NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>)”.</li> <li>• The word “shall” has been added before “record the output”.</li> </ul>
§60.48b(c)	5.2.2.b.	Two occurrences of the language “continuous monitoring system” have been replaced with “CEMS”.
§60.48b(d)	5.2.2.c.	<ul style="list-style-type: none"> <li>• The language “§60.13(b)” in the next to last statement has been replaced with “§60.13(h)(2)”.</li> <li>• The last statement “At least 2 data points must be used to calculate each 1-hour average” has been deleted.</li> </ul>
§60.48b(e)(2)	5.2.2.d.(1) and 5.2.2.	The citation of authority has been changed from “§60.48b(e)(2)” to “§60.48b(e)(2)(i)”.
§60.48b(f)	5.2.2.e.	<ul style="list-style-type: none"> <li>• The language “nitrogen oxides” has been replaced with “NO<sub>x</sub>”.</li> <li>• The language “continuous monitoring system” has been replaced with “CEMS”.</li> <li>• The language “of appendix A of this part” has been added after “Method 7a”.</li> </ul>
§60.48b(g)(2)	5.2.2.f.(2)	The language “nitrogen oxides” has been replaced with “NO <sub>x</sub> ”.
§60.49b(d)	5.4.4.a.	<ul style="list-style-type: none"> <li>• The language “each calendar quarter” has been replaced with “the reporting period”.</li> <li>• The citation of authority has been changed from “§60.49b(d)” to “§60.49b(d)(1)”.</li> </ul>
§60.49b(g)	5.4.4.b.	The language “nitrogen oxides” has been replaced with “NO <sub>x</sub> ”.
§60.49b(g)(2)	5.4.4.b.(2)	The language “nitrogen oxides” has been replaced with “NO <sub>x</sub> ”.
§60.49b(g)(3)	5.4.4.b.(3)	The language “nitrogen oxides” has been replaced with “NO <sub>x</sub> ”.
§60.49b(g)(4)	5.4.4.b.(4)	Two occurrences of the language “nitrogen oxides” have been replaced with “NO <sub>x</sub> ”.
§60.49b(g)(8)	5.4.4.b.(8)	The language “continuous monitoring system” has been replaced with “CEMS”.
§60.49b(g)(9)	5.4.4.b.(9)	Two occurrences of the language “continuous monitoring system” have been replaced with “CEMS”.
§60.49b(g)(10)	5.4.4.b.(10)	The language “of this part” has been added.

6. **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.** This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

Affected Source Designation

The facility is a major source of HAPs. The permittee operates six (6) sources subject to this regulation, which are given in the following table.

Em. Unit	Description	Em. Pt. ID	Fuel / Combustion	Design Heat Input (MMBtu/hr)	APCD <sup>1</sup> Type	APCD ID	Year Installed
P02	No. 2 Boiler	475	Coal / Spreader-Stoker	64.2	Dust Collector and Baghouse (PM) <sup>2</sup> ;  and  Dry Sorbent Injection (HCl and Hg) <sup>3</sup>	P102C <sup>4</sup> P202C <sup>4</sup>	1947
P03	No. 3 Boiler	476		94		P103C P203C	1957
P04	No. 4 Boiler			125		P104C P204C	1959
P05	No. 5 Boiler	477		181		P105C P205C	1963
P06	No. 6 Boiler			241		P106C P206C	1965
P31	No. 8 Boiler	479	Natural Gas	181	Low NO <sub>x</sub> Generation Burners, Lean Burn Controls, and Flue Gas Recirculation	P31C	1989

<sup>1</sup> Air Pollution Control Device

<sup>2</sup> Single stage dust collector followed by a baghouse (cf. renewal application Attachments G).

<sup>3</sup> Hydrated lime is injected into the ductwork after the combustion chamber at a controlled rate based on steam production. The lime absorbs the contaminants in the air stream and is then collected in the baghouse (cf. application Attachments G and 3/29/2017 technical correspondence).

<sup>4</sup> For all the coal-fired boilers, the P100C series of control device IDs are PM control. The P200C series are the HCl and Hg control devices.

Applicable Substantive Requirements

Construction commenced for all six units before June 4, 2010, which is the new source construction date in §63.7490(b). The units are therefore existing (cf. §63.7490(d)). The units do not meet any of the exemption criteria in §63.7491. P02 through P06 are categorized in the “Stokers designed to burn coal/solid fuel” sub-category listed in §63.7499(b) and meet the definition of *Stoker* in §63.7575 since spreader stokers are included in overfeed stokers, which is one of two general types of stokers. P31 is categorized in the “Units designed to burn gas 1 fuels” sub-category since it burns only natural gas as specified in §63.7499(l) and §63.7575. Since they are considered existing for Subpart DDDDD, all of the units must be in compliance with Subpart DDDDD as of January 31, 2016 (cf. §63.7495(b)). According to technical correspondence received from the permittee on 2/27/2017, all of the units are equipped with a continuous oxygen trim system that maintains an optimum air to fuel ratio. However, only the natural gas-fired boiler P31 utilizes its system. The permittee stated that it has elected not to utilize the continuous oxygen trim systems on all of the coal-fired boilers due to problems ensuring the

operators will keep the system engaged. As a result, the permittee has committed to performing annual tune-ups for the five (5) coal-fired boilers (instead of every 5 years if the oxygen trim systems were utilized). The units are subject to the requirement in §63.7500(a)(1) to meet each applicable standard in Tables 1 through 3, and 11 through 13, of Subpart DDDDD. Within Table 2, the requirements that apply to the coal-fired units are Items 1 (HCl and Hg), 2 (filterable PM or TSM), and 4 (CO). Within Table 3, Item 3 applies to the coal-fired units since they do not utilize a continuous oxygen trim system that maintains an optimum air to fuel ratio. Further, because the facility operates existing affected sources located at a major source of HAPs, the permittee is also subject to Item 4 in Table 3, which is generally applicable to all affected units at the facility regardless of the type of fuel combusted. Additionally, the startup and shutdown requirements in Items 5 and 6 apply to P02 through P06 since the coal-fired units are subject to Subpart DDDDD emission limits (see discussion of startup variance below). Since P02 through P06 each utilize a fabric filter control not utilizing a PM CPMS, the permittee has elected to comply with the 10 percent opacity operating limit in Item 3.a. in Table 4. Since the coal-fired boilers utilize dry sorbent injection not using a mercury CEMS, then the minimum sorbent injection rate operating limit in Item 5 of Table 4 is applicable. Because the permittee utilizes performance testing to demonstrate compliance, the operating load shall not exceed the limit established by Item 7 in Table 4. Finally, because the coal-fired boilers are not utilizing a CO CEMS to demonstrate compliance with its CO limitation, then an oxygen analyzer system must be utilized, which is Item 8 in Table 4.

To summarize, the substantive requirements applicable to the **coal-fired boilers P02 through P06** are:

- The permittee must meet the **pollutant emission limitations** for HCl, Hg, filterable PM, and CO in Items 1, 2, and 4 in Table 2 to Subpart DDDDD.

According to the NOCS (dated June 9, 2016), all of the boilers are in compliance with the emission limits for the initial compliance demonstration. The permittee submitted a revised NOCS (dated September 30, 2016) because of a correction issued by the testing vendor for the mercury concentration as reported. The revision affected the results of P02, P04, and P05, only. There was no change in the compliance status for any of the affected units as the revised mercury results remained below the applicable Subpart DDDDD limitation.

- The permittee must meet the **10 percent opacity** operating limitation in accordance with Item 3.a. in Table 4 to Subpart DDDDD.
- The permittee must meet the **minimum sorbent injection rate** operating limitation in accordance with Item 5 in Table 4 to Subpart DDDDD.
- The permittee must maintain the 30-day rolling average boiler **operating load** in accordance with Item 7 in Table 4 to Subpart DDDDD.
- The permittee must utilize an **oxygen analyzer system** as required in §63.7525(a), which is Item 8 in Table 4 to Subpart DDDDD.
- The permittee must conduct **annual tune-ups** per Item 3 in Table 3 to Subpart DDDDD. Specifically, §63.7540(a)(10) is applicable and provides the tune-up specifications. The permittee's NOCS (dated June 9, 2016) states that the initial tune-up has been completed for boilers P02 through P06.

- The permittee must complete a **one-time energy assessment** as required by Item 4 in Table 3. The permittee's NOCS (dated June 9, 2016) states that an energy assessment was performed according to §63.7530(e). According to 2/27/2017 technical correspondence, the assessment was performed on September 21-24, 2015 for P02, P03, P04, P05, and P06.
- The permittee must follow the **startup procedures** per Item 5 in Table 3 while utilizing only the paragraph (2) definition of "startup" as required by the variance granted by U.S. EPA (see discussion below).
- The permittee must follow the **shutdown procedures** per Item 6 in Table 3.

The substantive requirements applicable to the **natural gas-fired boiler P31** are:

- The permittee must conduct a **tune-up every five (5) years** per Item 1 in Table 3 to Subpart DDDDD. Refer to specific requirements in §§63.7540(a)(12) and (a)(10). The permittee's NOCS (dated June 9, 2016) states that the initial tune-up was completed for P31 on November 17, 2015.
- The permittee must complete a **one-time energy assessment** as required by Item 4 in Table 3. The permittee's NOCS (dated June 9, 2016) states that an energy assessment was performed according to §63.7530(e). According to 2/27/2017 technical correspondence, the assessment was performed on September 21-24, 2015 for P31.

#### Request for Variance

The permittee requested a variance to the work practice standards pertaining to boiler startups which are specified in 40 C.F.R. 63, Subpart DDDDD. This request pertains to the coal-fired boilers P02 through P06. U.S. EPA responded to the permittee's request because WV DEP has not yet been delegated the authority to act on such requests. Under the NESHAP's variance provisions at 40 C.F.R. §63.7555(d)(13), sources complying with the Boiler NESHAP as required for sources that rely on paragraph (2) of the rule's definition of "startup" may obtain a variance allowing additional time to engage their PM controls during boiler startups if they are able to meet specified requirements. EPA approved the permittee's request for a variance allowing it to "increase the allowable time between the start of fuel feed to the boiler as defined by the rule and the closure of the Particulate control device (Bag Filter) bypass valves by an additional three (3) hours for a total of four (4) hours elapsed time between the start of fresh fuel feed (defined as the first addition of new "not clean" fuel) and the requirement that the particulate control device be online." However, EPA gave this approval with a condition pertaining to the allowed startup time. This condition is that if the permittee finds during a startup of a boiler that conditions would allow it to safely bring the PM control device of a boiler on-line more quickly than the variance's allowed time, then during that startup the permittee shall bring the PM control device of the boiler on-line as expeditiously as is safely possible. This approval is contingent on the permittee complying with Subpart DDDDD as required for sources relying on paragraph (2) of the definition of "startup" (with the exception of the requirements modified by this variance); on its continuing to use manufacturer recommended procedures to alleviate or prevent the identified safety issue; and, on its continuing use of clean fuels when igniting the coal bed in its boilers.

Since the EPA letter (dated March 15, 2016) is the authority to allow the variance, and defines its terms and conditions, it has been included in the renewal operating permit as Appendix E.

The permittee must rely on paragraph (2) of the rule's definition of "startup" for the variance. Therefore, regulation requirements involving the startup definition will be interpreted and applied based upon this stipulation.

Incorporation of Applicable Requirements into the Title V Operating Permit Renewal

The current permit includes a placeholder condition 3.1.14., which has been eliminated for the renewal permit. Instead, all applicable Subpart DDDDD requirements have been incorporated into the renewal permit. The requirements applicable to the coal-fired boilers and the natural gas boiler have been incorporated into permit sections 4.0 and 5.0, respectively.

Based upon U.S. EPA guidance<sup>1</sup>, the permit will include all applicable emission limitations and standards, and all applicable monitoring and reporting to assure compliance with the limitations and standards. Monitoring, recordkeeping, reporting, and all other applicable requirements necessary to assure compliance with the permit terms will not be IBR. Paraphrasing of regulation language will not be utilized. However, as much as practicable, non-applicable regulatory language has been excluded from permit conditions for precision and disambiguation of the permit terms. Specifically, the permittee has not elected to comply with the following emission standards and associated compliance methods and their alternatives, and therefore such language will not be included in the renewal permit where such change is readily accomplished without affecting the coherence of the requirement:

- Total Selected Metals (TSM) – Item #2 in Table 2 to Subpart DDDDD;
- CEMS for compliance with CO limitation – Item #4 in Table 2 to Subpart DDDDD;
- Fuel analyses;
- Emissions averaging; and
- Efficiency credits.

Finally, regulatory language “this subpart” has been replaced by “40 C.F.R. 63 Subpart DDDDD” except in sub-conditions that have an introductory paragraph where this change can be made and the context of the condition allows for “this subpart” to be understood in the sub-conditions.

Table DDDDD below lists the sections of Subpart DDDDD and their applicability (and non-applicability where necessary) to the affected emission units, and discusses how the applicable requirements are incorporated into the renewal operating permit.

**Table DDDDD**

<b>Subpart DDDDD Section</b>	<b>Affected Emission Unit</b>	<b>Title V</b>	<b>Discussion</b>
§63.7495(b)	P02-P06 P31	None	The applicable compliance date requirement for existing sources is January 31, 2016. The substantive requirements for the boilers are discussed below in §63.7500(a). In accordance with §63.7510(e), initial compliance with the substantive requirements must be complete no later than 180 days after the compliance date. Considering that these dates have passed, and the permittee has completed the requirements that must be fulfilled before the compliance date or within a period after the compliance date, there is no need to include the compliance date as a permit condition for this renewal.
§63.7495(d)	P02-P06 P31	4.5.4. 4.5.5.	This section requires the notifications in §63.7545. Therefore, any applicable specific requirement in §63.7545 incorporated into the renewal permit also cites §63.7495(d) as authority.

<sup>1</sup> U.S. EPA’s White Paper Number 2 for Improved Implementation of the Part 70 Operating Permit Program (March 5, 1996), located at <https://www.epa.gov/sites/production/files/2015-08/documents/wtppr-2.pdf> and accessed by the writer on February 7, 2016.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
<b>Limitations and Standards</b>			
§63.7499	P02-P06 P31	None	<p>Boilers P02 through P06 are considered a Stoker designed to burn coal/solid fossil fuel as specified in §63.7499(b). Boiler P31 is considered a Unit designed to burn gas 1 fuels as specified in §63.7499(l).</p> <p>No permit condition is warranted for this section since it defines the boiler subcategories and does not require action by the permittee.</p>
§63.7500(a)(1)	P02-P06 P31	4.1.11. 4.1.12. 4.1.13. 4.1.14. 4.1.15. 5.1.10. 5.1.11.	<p><u>Emission Limitations and Work Practice Standards:</u></p> <p>§63.7500(a)(1) requires the permittee to meet each limit and standard in Tables 1 through 3, and 11 through 13 of Subpart DDDDD, which are:</p> <ul style="list-style-type: none"> <li>• P02-P06 – Table 2, item #1 emission limitations for pollutants HCl and Mercury since the units burn solid fuel; Table 2, item #2 emission limitation for filterable PM (or TSM) since the units are designed to burn coal/solid fossil fuel; Table 2, item #4 emission limitation for CO since the units are considered stokers designed to burn coal/solid fossil fuel; Table 3, item #3 annual frequency tune-ups since the permittee has elected not to utilize the continuous oxygen trim systems on P02 through P06; Table 3, item #4 one-time energy assessment; and Table 3, items #5 and #6 for startup and shutdown, respectively. Since the variance granted by U.S. EPA requires the permittee to follow the paragraph (2) definition of startup, the option for paragraph (1) in Item 5.c.(1) has been excluded from permit condition 4.1.14. The language of the item has been revised to require compliance with paragraph (2) of the definition. According to 2/27/2017 technical correspondence, the permittee will comply with the heat input-based emission limits; therefore, the alternative output-based emission limits have been excluded from permit condition 4.1.11. In addition, the permittee has not elected to utilize CO CEMS; therefore, the CEMS limit of 340 ppm by volume on a 30-day rolling average has been excluded from condition 4.1.11.</li> <li>• P31 – Table 3, item #1 5-year frequency tune-ups since P31 utilizes a continuous oxygen trim system to maintain an optimum air to fuel ratio per 2/27/2017 technical correspondence from the permittee. The one-time energy assessment in Table 3, item #4, is applicable to P31. The content of the tune-up and one-time energy assessment requirements is already specified in conditions 4.1.12. and 4.1.13. for the coal-fired boilers; therefore, the same requirements applicable to P31 reference this content to avoid duplication in permit conditions 5.1.10. and 5.1.11. for the natural gas-fired boiler P31.</li> </ul> <p>Note that the requirements in Tables 11 through 13 are not applicable to any of the boilers since they are not new or reconstructed.</p> <p>The gas 1 unit P31 is not subject to the emission limits in Tables 1 and 2 or 11 through 13, or the operating limits in Table 4 in accordance with the last sentence in §63.7500(e) (discussed below).</p>

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7500(a)(2)	P02-P06	4.1.16. 4.1.17. 4.1.18. 4.1.19.	<p>This paragraph requires the permittee to meet each operating limit in Table 4 to this subpart that applies.</p> <ul style="list-style-type: none"> <li>• The boilers P02 through P06 utilize fabric filter control and are neither electing nor are required under Subpart DDDDD to utilize a PM CPMS; therefore, item #3 in Table 4 is applicable. The permittee has elected to meet item #3.a. to maintain <b>opacity</b> to less than or equal to 10 percent or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with PM emission limitation. The permittee is already required to meet a 10 percent opacity standard under 45CSR§2-3.1. and has monitoring in place to ensure compliance. The State rule requirement is based upon a 6-minute block average, whereas the MACT standard is a daily block average. The MACT standard also allows for a higher opacity operating limit based upon a performance test that demonstrates compliance with the PM mass rate; however, the State rule is strictly set at 10 percent. Based upon these facts, a streamlining note has been added to permit condition 4.1.16.</li> <li>• According to the application Attachments G, the boilers utilize dry sorbent injection for control of HCl and Hg, which is subject to the requirement in item #5 in Table 4. This requires the permittee maintain the <b>minimum sorbent injection rate</b> as defined in §63.7575. The first paragraph of the definition has been included in permit condition 4.1.17. The second paragraph is not applicable since P02 through P06 do not operate by fluidized bed combustion. Since the definition of <i>minimum sorbent injection rate</i> includes the term <i>load fraction</i>, its definition has been written in the condition as well. Since the definitions have been included, §63.7575 is also listed in the citation of authority.</li> <li>• According to the application Attachments E for P02 through P06, the permittee has elected to demonstrate compliance using performance testing, which is item #7 in Table 4. This requires the permittee not exceed 110 percent of the highest hourly average <b>operating load</b> recorded during the most recent performance test that demonstrated compliance. Refer to permit condition 4.1.18.</li> <li>• §63.7525(a) requires that units subject to a CO emission limit in Table 2 to Subpart DDDDD install, operate, and maintain an <b>oxygen analyzer system</b>, as defined in §63.7575, or install, certify, operate, and maintain continuous emission monitoring systems for CO and oxygen (or carbon dioxide (CO<sub>2</sub>)). The permittee is not utilizing CO CEMS since its NOCS stated compliance with the 160 ppm limitation rather than 340 ppm over a 30-day rolling average using CEMS. Therefore, the permittee is required to utilize an oxygen analyzer system. In 2/27/2017 technical correspondence the permittee stated that the coal-fired boilers have oxygen trim systems, but the permittee has elected not to use them due to problems ensuring the operators will keep the system engaged. While Subpart DDDDD does not require use of an oxygen trim system, the applicable requirement in §63.7525(a) requires use of an oxygen analyzer system. As a result, the requirement regarding an oxygen analyzer system in item #8 of Table 4 is also applicable. All</li> </ul>

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
			<p>other subsequent applicable oxygen analyzer requirements will be incorporated into the renewal permit as well. Refer to permit condition 4.1.19.</p> <p>None of the requirements in §63.7500(a)(2) apply to the natural gas-fired boiler P31 since it is not subject to Subpart DDDDD emission limitations specified in Table 2.</p>
§63.7500(a)(3)	P02-P06 P31	4.1.20. 5.1.12.	The general duty requirement is applicable and is therefore included in the permit.
§63.7500(b)	None	None	U.S. EPA has responded to the request for a variance to the startup work practice standard in §63.7500. However, this paragraph does not require the permittee to do anything; therefore, no permit condition is warranted.
§63.7500(c)	None	None	This requirement is not applicable to the units since they are not limited use.
§63.7500(d)	None	None	This requirement is not applicable to the units since they are not in either the Gas 2 or light liquid fuel subcategories, and are not less than 5 MMBtu/hr design heat input.
§63.7500(e)	None	None	This paragraph applies only to units designed to burn gas 1 fuels subcategory. However, since P31 is rated greater than 10 MMBtu/hr, there is no applicable requirement in this paragraph. The paragraph does provide that due to burning gas 1, the unit P31 is not subject to the emission limits in Tables 1 and 2 or 11 through 13, or the operating limits in Table 4, which has already been considered in the discussion of §63.7500(a).
§63.7500(f)	P02-P06	4.1.11.	This section requires compliance with the standards at all times the affected unit is operating, except during periods of startup and shutdown during which time the permittee must comply only with Table 3 to Subpart DDDDD. This applicable requirement has been added to the permit condition that contains the applicable emission standards for boilers P02 through P06. This paragraph does not apply to P31 since it is only subject to annual tune-ups and the one-time energy assessment.
§63.7505(a)	P02-P06 P31	4.1.11. - 4.1.13.  4.1.16. - 4.1.19.  5.1.10. 5.1.11.	This section requires compliance with the emission limits, work practice standards, and operating limits in Subpart DDDDD. The section is cited with such permit conditions.
§63.7505(c)	P02-P06	4.3.6.	This paragraph specifies the options for demonstrating compliance with emission limits. The parenthetical sentence for gaseous fuels has been excluded from the permit condition since P02-P06 do not combust such fuels. This section does not apply to P31 since it is not subject to Subpart DDDDD emission limits.
§63.7505(d)	P02-P06	4.2.8.	This monitoring requirement has been incorporated into the permit since the permittee will use performance testing to establish the applicable operating limits ( <i>i.e.</i> , sorbent injection rate, operating load, and oxygen content) required by items 5, 7, and 8 of Table 4 to this subpart (permit conditions 4.1.17. through 4.1.19.). After establishing the operating limits by performance testing, until the next performance test the permittee must comply with the operating limit ( <i>cf.</i> §63.7520(c)) by maintaining the minimum sorbent injection rate, and

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
			not exceeding 110% of the operating load, or allowing oxygen content to go below the lowest concentration recorded during the last performance test. In this case, the permittee must monitor the sorbent injection rate, oxygen content, and fuel feed parameter for P02 through P06 (cf. §63.7540(a)(1), Table 8, Items 6, 9, and 10) to demonstrate continuous compliance with the emission limits, which qualifies as a continuous parameter monitoring system (CPMS).
§63.7505(e)	P02-P06	4.1.21.	In accordance with the variance granted by U.S. EPA, the permittee must utilize the paragraph (2) definition of startup. Since this paragraph applies when utilizing the paragraph (2) definition, this requirement has been incorporated into the permit.
<b>Initial Compliance Requirements</b>			
§63.7510(a)	None	None	The permittee has completed the initial compliance demonstration and reported the results in the Notification of Compliance Status (NOCS) dated 6/9/2016. Therefore, no permit condition is necessary for this initial compliance requirement.
§63.7510(b)	None	None	The permittee has completed the initial compliance demonstration and reported the results in the Notification of Compliance Status (NOCS) dated 6/9/2016. Therefore, no permit condition is necessary for this initial compliance requirement.
§63.7510(c)	None	None	The permittee has completed the initial compliance demonstration and reported the results in the Notification of Compliance Status (NOCS) dated 6/9/2016. Therefore, no permit condition is necessary for this initial compliance requirement.
§63.7510(d)	None	None	The permittee has completed the initial compliance demonstration and reported the results in the Notification of Compliance Status (NOCS) dated 6/9/2016. Therefore, no permit condition is necessary for this initial compliance requirement.
§63.7510(e)	None	None	The permittee has completed the initial compliance demonstration and reported the results in the Notification of Compliance Status (NOCS) dated 6/9/2016. Therefore, no permit condition is necessary for this initial compliance requirement.
§63.7510(f)	None	None	None of the units are new or reconstructed; therefore, this paragraph is not applicable.
§63.7510(g)	None	None	None of the units are new or reconstructed; therefore, this paragraph is not applicable.
§63.7510(h)	None	None	None of the units combust solid waste; therefore, this paragraph is not applicable.
§63.7510(i)	None	None	None of the units became subject to Subpart DDDDD after January 31, 2016; therefore, this paragraph is not applicable.
§63.7510(j)	None	None	None of the units have not operated between the effective date of Subpart DDDDD and the applicable compliance date; therefore, this paragraph is not applicable.
§63.7510(k)	None	None	There are no plans specified in the application or technical correspondence for this renewal that suggest any of the units may switch its subcategory; therefore, a permit condition is not necessary for this requirement. If a change were to occur, the permittee would be required to comply with this paragraph.
§63.7515(a)	P02-P06	4.3.7.	This paragraph specifies that performance testing subsequent to the initial compliance demonstration must be conducted annually, except as specified in other paragraphs in §63.7515. Since the permittee is complying with emission limitation by performance testing, this requirement has been incorporated into the permit.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7515(b)	P02-P06	4.3.8.	This paragraph specifies criteria for when performance testing may be conducted less frequent than annually. Since the permittee is complying with emission limitation by performance testing, this requirement has been incorporated into the permit.
§63.7515(c)	P02-P06	4.3.9.	This paragraph provides instructions for when performance testing results indicate either an emission limit is exceeded or 75 percent of the emission limit is exceeded. Since the permittee is complying with emission limitation by performance testing, this requirement has been incorporated into the permit. Non-applicable table numbers have been excluded.
§63.7515(d)	P02-P06 P31	4.1.12. 5.1.10.	This section requires the tune-ups to be no more than 13 and 61 months after the previous tune-up for annual and 5-year frequency tune-ups, respectively. Therefore, the applicable requirements have been included in the permit conditions as the first bullet statement.
§63.7515(e)	None	None	This paragraph specifies requirements for fuel analysis, which the permittee will not be utilizing since it will demonstrate compliance by performance testing. For these reasons, this paragraph is not applicable.
§63.7515(f)	P02-P06	4.3.10.	This requirement is to report the results of performance tests and the associated fuel analyses within 60 days after their completion. Since applicable reporting requirement §63.7550(h)(1) for performance testing has been incorporated into the reporting subsection 4.5. as discussed below, this requirement in the testing section of the rule (i.e., §63.7515) will be included in permit subsection 4.3.
§63.7515(g)	P02-P06 P31	4.3.11. 5.1.10.	This requirement applies to P02 through P06 for compliance with emission limits and the tune-up work practice. It applies to P31 for its tune-up work practice, but places no additional requirement upon P31; therefore, §63.7515(g) has simply been added to the citation of authority for permit condition 5.1.10.
§63.7515(h)	None	None	Neither of the units are in the units designed to burn light liquid subcategory; therefore, this paragraph is not applicable.
§63.7515(i)	None	None	Compliance with the CO limit applicable to P02 through P06 will be demonstrated by stack testing rather than a CO CEMS; therefore, this requirement is not applicable.
§63.7520	P02-P06	4.3.12.	This applicable section has been included in the renewal permit. The content of Table 5 is various test methods that have been IBR into the permit.  In Table 7 the following items are applicable for P02 through P06: <ul style="list-style-type: none"> <li>• Item #1.c. to establish the opacity operating limit even though the limit is streamlined by 45CSR§2-3.1. in permit condition 4.1.1.</li> <li>• Item #2.b. to monitor sorbent injection rate.</li> <li>• Item #4 to establish the oxygen content operating limit.</li> <li>• Item #5 that specifies the frequency of obtaining operating load data, averaging load data, and the 110% load multiplier.</li> </ul>
§63.7521(a)	P02-P06	4.3.13.	This requirement has been included in the renewal permit since P02-P06 combust solid fuel. Furthermore, this fuel analysis is part of the performance testing as clarified in the last statement in §63.7521(c). Non-applicable language concerning gaseous and liquid fuels has been excluded. The renewal application states that the permittee performs daily coal analysis.
§63.7521(b)	P02-P06	4.3.14.	This requirement has been included in the renewal permit since §63.7521(a) is applicable.
§63.7521(c)	P02-P06	4.3.15.	This requirement has been included in the renewal permit since §63.7521(a) is applicable.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7521(d)	P02-P06	4.3.16.	This applicable requirement has been included in the renewal permit since it pertains to applicable requirements in §63.7521(c).
§63.7521(e)	P02-P06	4.3.17.	This requirement has been included in the renewal permit since §63.7521(a) and (c) are applicable. The specific equations have not been written in the permit since calculation methodologies may be IBR in accordance with section E.2.c. of the previously cited U.S. EPA guidance.
§63.7521(f)	None	None	P02-P06 do not combust gaseous fuel of any type; therefore, this paragraph is not applicable. P31 does not combust any fuel other than natural gas; therefore, this paragraph is not applicable.
§63.7521(g)	None	None	P02-P06 do not combust other gas 1 fuels; therefore, this paragraph is not applicable. P31 does not combust other gas 1 fuels; therefore, this paragraph is not applicable.
§63.7521(h)	None	None	P02-P06 do not combust gaseous fuels; therefore, this paragraph is not applicable.  As a unit that burns only natural gas, P31 is a gas 1 fuel subcategory unit subject only to the tune-up work practice and one-time energy assessment, and is not subject to Subpart DDDDD emission limitations or standards. Therefore, this fuel sample requirement for fuel specification is not required for P31.
§63.7521(i)	None	None	P02-P06 do not combust gaseous fuels; therefore, this paragraph is not applicable.  As a unit that burns only natural gas, P31 does not combust other gas 1 fuel; therefore, this paragraph is not applicable.
§63.7522	None	None	The application does not indicate that §63.7522 is applicable; therefore, this paragraph regarding emissions averaging for more than one existing unit has been excluded from the permit.
§63.7525(a)	P02-P06	4.2.9.	This requirement is applicable since P02 through P06 are subject to a CO emission limit in Table 2 to Subpart DDDDD. Therefore, the permittee must utilize an oxygen analyzer system, as defined in §63.7575, or a CEMS for CO and oxygen (or carbon dioxide) according to §63.7525(a). The permittee will demonstrate compliance by utilizing an oxygen analyzer system as defined in §63.7575. Therefore, §§63.7525(a)(1) through (6) are not applicable as they apply to CO CEMS. §63.7525(a)(7) is not applicable since it pertains to oxygen trim systems, which the permittee is not utilizing on P02 through P06.
§63.7525(b)	None	None	None of the units has an average annual heat input rate greater than 250 MMBtu/hr; therefore, this requirement to operate a PM CPMS is not applicable.
§63.7525(c)	P02-P06	4.2.10.	P02 through P06 are subject to the opacity limitation in item #3.a. to Table 4; therefore, this COMS requirement is applicable. The permittee already utilizes COMS for compliance with 45CSR2.
§63.7525(d)	P02-P06	4.2.11.	The permittee intends to demonstrate compliance with the emission limits by performance stack testing. However, part of the performance stack testing is to establish (or reestablish during subsequent tests) any applicable operating limit that must be complied with during the period between stack tests. In this case, the opacity, minimum sorbent injection rate, oxygen content, and boiler operating load are the applicable operating limits that must be monitored in the interim between stack tests. Based upon these facts, the requirements have been incorporated into the renewal permit.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7525(e)	None	None	The applicable operating limits in Table 4 to Subpart DDDDD do not require the use of a flow monitoring system since the permittee monitors the amount of coal administered to the boilers P02 through P06 and the sorbent injection rate is covered by §63.7525(i); therefore, this paragraph does not apply.
§63.7525(f)	None	None	The applicable operating limits in Table 4 to Subpart DDDDD do not require the use of a pressure monitoring system since the permittee monitors the amount of coal administered to the boilers P02 through P06; therefore, this paragraph does not apply.
§63.7525(g)	None	None	The applicable operating limits in Table 4 to Subpart DDDDD do not require the use of a pH monitoring system since the permittee monitors the amount of coal administered to the boilers P02 through P06; therefore, this paragraph does not apply.
§63.7525(h)	None	None	The applicable operating limits in Table 4 to Subpart DDDDD do not require a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber; therefore, this paragraph does not apply.
§63.7525(i)	P02-P06	4.2.12.	One of the applicable operating limits in Table 4 to Subpart DDDDD is the minimum sorbent injection rate; therefore, this paragraph is applicable.
§63.7525(j)	None	None	The permittee is not required by Subpart DDDDD (and does not elect to comply with this subpart) to utilize a fabric filter bag leak detection system; therefore, this paragraph does not apply.
§63.7525(k)	None	None	None of the boilers are limited use units; therefore, this paragraph does not apply.
§63.7525(l)	None	None	The permittee has elected to demonstrate compliance through performance testing instead of CEMS for Hg and HCl; therefore, this paragraph does not apply.
§63.7525(m)	None	None	While the permittee utilizes dry sorbent injection control technology for Subpart DDDDD compliance, it has not elected to use an SO <sub>2</sub> CEMS to demonstrate continuous compliance with an alternative to the HCl emission limit, to which this paragraph is applicable; therefore, this paragraph does not apply. Compliance with the HCl limit will be demonstrated by performance testing as specified in Subpart DDDDD.
§63.7530(a)	None	None	The permittee has completed the initial compliance demonstration and reported the results in the Notification of Compliance Status (NOCS) dated 6/9/2016. Therefore, no permit condition is necessary for this initial compliance requirement.
§63.7530(b)	P02-P06	4.3.18.	This applicable requirement for stack testing and establishing applicable operating limits has been incorporated into the renewal permit. However, the specific test procedures and equations in this paragraph have been IBR.  §63.7530(b)(4)(i) is not applicable since a wet acid gas scrubber is not utilized.  §63.7530(b)(4)(ii) is not applicable since a PM CPMS is not utilized. Instead the permittee is monitoring opacity via COMS to comply with item 3.a. in Table 4 to Subpart DDDDD.  §63.7530(b)(4)(iii) is not applicable since a particulate wet scrubber is not utilized.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
			<p>§63.7530(b)(4)(iv) is not applicable since an ESP operated with a wet scrubber is not utilized.</p> <p>§63.7530(b)(4)(v) is applicable since a dry scrubber is utilized.</p> <p>§63.7530(b)(4)(vi) is not applicable since activated carbon injection is not utilized.</p> <p>§63.7530(b)(4)(vii) is not applicable since a bag leak detection system is not utilized per item 3.b. in Table 4 to Subpart DDDDD. Instead the permittee is monitoring opacity via COMS to comply with item 3.a. in Table 4 to Subpart DDDDD.</p> <p>§63.7530(b)(4)(viii) is applicable since the permittee is required to comply with the oxygen content operating limit per item 8 in Table 4 to Subpart DDDDD. Refer to sub-condition 4.3.18.(4)(viii).</p> <p>§63.7530(b)(4)(ix) is not applicable since the permittee is not demonstrating compliance with the HCl limit by electing the alternative limit and utilizing an SO<sub>2</sub> CEMS. Instead the permittee is utilizing periodic performance testing for HCl compliance.</p>
§63.7530(c)	None	None	The permittee has elected to demonstrate compliance by performance testing instead of fuel analysis; therefore, this paragraph has been excluded from the permit.
§63.7530(e)	None	None	This applicable requirement specifies a component of the NOCS. However, the NOCS has been submitted and there are no ongoing requirements in this paragraph or in §63.7545(e). Therefore, this requirement has been excluded from the renewal permit.
§63.7530(f)	None	None	This applicable requirement specifies that the NOCS containing the results of the initial compliance demonstration must be submitted as required by §63.7545(e). The NOCS has been submitted and there are no ongoing requirements in this paragraph or in §63.7545(e). Therefore, this requirement has been excluded from the renewal permit.
§63.7530(g)	None	None	None of the units will combust another gas 1 fuel as defined in §63.7575; therefore, this requirement is not applicable.
§63.7530(h)	P02-P06	4.1.12. 4.1.13. 4.1.14. 4.1.15.	This requirement applies to a unit that is subject to emission limits in Tables 1 or 2 or 11 through 13. Only P02 through P06 are subject to emission limits, which are in Table 2. Therefore, this requirement to meet Table 3 work practices has been cited in the permit conditions containing such requirements for P02 through P06 only.
§63.7530(i)	None	None	The permittee has not elected to comply with the alternative SO <sub>2</sub> CEMS operating limit in Tables 4 and 8 of Subpart DDDDD; therefore, this requirement is not applicable.
§63.7533	None	None	According to 2/27/2017 technical correspondence the units are not complying using the alternative equivalent output-based emission limits instead of heat input-based limits in Table 2; therefore, this requirement is not applicable.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
<b>Continuous Compliance Requirements</b>			
§§63.7535(a), (b), (c), (d)	P02-P06	4.2.13.	<p>These paragraphs are for demonstrating continuous compliance when required to monitor and collect data. Since the permittee is required by Subpart DDDDD to monitor opacity, sorbent injection rate, operating load, and oxygen content, then this section is applicable to P02 through P06.</p> <p>This section does not apply to P31 since it is subject only to 5-year tune-ups and the one-time energy assessment, and as such does not utilize a CMS or other data monitoring.</p>
§§63.7540(a) and (a)(1)	P02-P06	4.2.14. 4.2.15.	<p>§63.7540(a) requires compliance with applicable emission limits (Table 2), work practice standards (Table 3), and operating limits (Table 4) according to the methods in Table 8 and in paragraphs (a)(1) through (19) of §63.7540. Table 8 has been addressed in this discussion of §§63.7540(a) and (a)(1), and each subsequent paragraph (2) through (19) are discussed below.</p> <p>Within Table 8, items 1, 6, 9, and 10 for monitoring opacity, dry scrubber sorbent injection rate, oxygen content, and operating load are applicable to P02 through P06. These monitoring provisions for demonstrating continuous compliance have been incorporated into the renewal permit as condition 4.2.14. Since the permittee has installed an oxygen trim system on each boiler P02 through P06, but has elected not to utilize them for Subpart DDDDD compliance, then the last statement in item 9.a. that exempts units with oxygen trim systems has been excluded from the permit condition for precision.</p> <p>While §63.7540(a) requires compliance with work practice standards in Table 3, some of which apply to P31, none of the requirements in Table 8 are utilized to comply with any Table 3 requirement applicable to P31; therefore, §63.7540(a) does not apply to P31.</p> <p>§63.7540(a)(1) defines a deviation from operating limits and requires that operating limits be confirmed or reestablished during performance tests. Therefore, this paragraph has been included in the renewal permit as condition 4.2.15.</p>
§63.7540(a)(2)	P02-P06	4.4.8.	<p>This requirement has been combined with the requirement in §63.7555(d) for one streamlined requirement. In order to assimilate §63.7555(d) into this requirement, the language “on a monthly basis” has been added to the language of this paragraph from §63.7540(a)(2). Since the permittee will not demonstrate compliance through fuel analysis, §63.7540(a)(2)(i) has been excluded from the condition.</p> <p>This requirement is not applicable to P31 since it is not subject to an emission limit in Tables 1, 2, or 11 through 13 of Subpart DDDDD, which is the criteria given in §63.7555(d) (see discussion of that paragraph below).</p>
§63.7540(a)(3)	None	None	<p>Since the permittee is not planning to use fuel analysis for the solid fuel that P02 through P06 combusts, this requirement has been excluded from the renewal permit. This requirement does not apply to P31 since it combusts natural gas.</p>
§63.7540(a)(4)	P02-P06	4.3.19.	<p>Since P02 through P06 are subject to an HCl limit, and the permittee will demonstrate compliance using performance testing, this requirement has been included in the renewal permit.</p>

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7540(a)(5)	None	None	Since the permittee is not planning to use fuel analysis to demonstrate compliance with the Hg limits applicable to P02 through P06, this requirement has been excluded from the renewal permit. This requirement does not apply to P31 since it is not subject to Subpart DDDDD emission limitations.
§63.7540(a)(6)	P02-P06	4.3.20.	Since P02 through P06 are subject to a mercury limit, and the permittee will demonstrate compliance using performance testing, this requirement has been included in the renewal permit.
§63.7540(a)(7)	None	None	While PM emissions from P02 through P06 are controlled by fabric filters, compliance is demonstrated by performance testing and opacity monitoring and not by a BLDS; therefore, this requirement is not applicable. Further, P31 is not subject to a Subpart DDDDD PM limit; therefore, this requirement is not applicable.
§63.7540(a)(8)	None	None	The permittee intends to demonstrate compliance with the CO limit by performance testing that will establish oxygen level monitoring as in applicable requirement §63.7520(c), Table 7, item 4, in permit condition 4.3.12. As such, the permittee does not intend to utilize a CO CEMS to which this paragraph applies. Therefore, no permit condition is warranted for this paragraph.
§63.7540(a)(9)	None	None	The permittee intends to demonstrate compliance with the PM limit by performance testing. As such, the permittee does not intend to utilize a PM CPMS or a PM CEMS to which this paragraph applies. Therefore, no permit condition is warranted for this paragraph.
§63.7540(a)(10)	P02-P06 P31	4.1.12. 5.1.10.	This paragraph requiring annual tune-ups is directly applicable to boilers P02 through P06 because their MDHI is greater than 10 MMBtu/hr and their continuous oxygen trim systems are not utilized.  Even though boiler P31 is subject to tune-ups every five (5) years, this paragraph is indirectly applicable to boiler P31 because the applicable requirement in §63.7540(a)(12) refers to the tune-up requirements in paragraphs (a)(10)(i) through (vi) of §63.7540. Therefore, this paragraph is cited in condition 5.1.10.
§63.7540(a)(11)	None	None	This paragraph does not apply to P02 through P06 because they are subject to annual tune-ups per §63.7540(a)(10) and item 3 in Table 3 to Subpart DDDDD.  This paragraph does not apply to P31 because it utilizes a continuous oxygen trim system and therefore must meet the requirements in §63.7540(a)(12) and item 1 in Table 3 to Subpart DDDDD.
§63.7540(a)(12)	P31	5.1.10.	This paragraph requiring a tune-up every five (5) years is applicable to P31 since it utilizes a continuous oxygen trim system that maintains an optimum air to fuel ratio.
§63.7540(a)(13)	P02-P06 P31	4.1.12. 5.1.10.	This requirement allows a delay up to 30 calendar days from startup for the tune-up if the unit is not operating the day the tune-up is scheduled. Since this pertains to all tune-ups, it has been written as the second bullet statement in the permit conditions.
§63.7540(a)(14)	None	None	The permittee does not intend to utilize a CEMS to measure Hg emissions, to which this paragraph applies. Therefore, no permit condition is warranted for this paragraph.
§63.7540(a)(15)	None	None	The permittee does not intend to utilize a CEMS to measure HCl emissions, to which this paragraph applies. Therefore, no permit condition is warranted for this paragraph.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7540(a)(16)	None	None	For P02 through P06 the permittee will comply with the PM limit instead of the alternative TSM limit; therefore, this requirement pertaining to TSM has been excluded from the permit.  This section does not apply to P31 since it is subject only to annual tune-ups and the one-time energy assessment, and as such is not required to meet a TSM limit.
§63.7540(a)(17)	None	None	For P02 through P06 the permittee will comply with the PM limit instead of the alternative TSM limit; therefore, this requirement pertaining to TSM has been excluded from the permit.  This section does not apply to P31 since it is subject only to annual tune-ups and the one-time energy assessment, and as such is not required to meet a TSM limit.
§63.7540(a)(18)	None	None	The permittee does not intend to utilize a PM CPMS and is not required to by Subpart DDDDD. Instead, performance stack testing and opacity monitoring via COMS as prescribed by Subpart DDDDD will be utilized to demonstrate compliance with the PM limit. Therefore, this paragraph is not applicable.
§63.7540(a)(19)	None	None	The permittee does not intend to utilize a PM CEMS. Instead, performance stack testing and opacity monitoring via COMS as prescribed by Subpart DDDDD will be utilized to demonstrate compliance with the PM limit. Therefore, this paragraph is not applicable.
§63.7540(b)	P02-P06 P31	4.5.6. 5.5.3.	The purpose of this requirement is to report deviations from applicable requirements. Clearly, this paragraph applies to P02 through P06 since they are subject to emission limitations. It also applies to P31 even though the requirement reads that it pertains to emission limits and operating limits (to which P31 is not subject). It also pertains to those requirements in Tables 1 through 4 or 11 through 13. P31 is subject to a work practice standard in Table 3 (conditions 5.1.10.). Therefore, the requirement applies to P31. This paragraph requires reporting in accordance with §63.7550; therefore, it has been cited with permit conditions from §63.7550 that contain specific requirements about reporting deviations.
§63.7540(c)	None	None	This section is not applicable to P02 through P06 since they do not combust gas 1 fuel. It is not applicable to P31 since it is not subject to a mercury limitation.
§63.7540(d)	P02-P06	4.1.14. 4.1.15.	This paragraph requires meeting the startup and shutdown work practice standards in items 5 and 6 of Table 3. Therefore, this paragraph has been added to the citation of authority for those permit conditions for P02 through P06. This requirement does not apply to P31 since it is not subject to Subpart DDDDD emission limits.
<b>Notifications, Reports, and Records</b>			
§63.7545(a)	P02-P06	4.5.4.	This requirement is to submit all the notifications in specified sections of Subpart A, which are discussed below.  §§63.7(b) and (c) are applicable to P02 through P06 since they are subject to Subpart DDDDD performance testing.  §63.8(e) is applicable to P02 through P06 since a CMS is utilized for monitoring opacity, oxygen content, and boiler operating load (cf. permit condition 4.2.14.).

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
			<p>§§63.8(f)(4) and (6) are not applicable since neither an alternative monitoring method, nor an alternative to the relative accuracy test has been requested by the permittee.</p> <p>Among §§63.9(b) through (h), the following are applicable:</p> <ul style="list-style-type: none"> <li>• §63.9(e) is notification of performance test, which is applicable to P02 through P06. This Subpart A requirement will be cited with the Subpart DDDDD requirement from §63.7545(d) in permit condition 4.5.5.</li> <li>• §63.9(f) is notification of opacity and VE observations. Since P02 through P06 are subject to a Subpart DDDDD opacity standard, this requirement is applicable.</li> <li>• §63.9(g) is additional notification requirements for sources with CMS, which is applicable to P02 through P06.</li> </ul> <p>Among §§63.9(b) through (h), the following either strictly do not apply or enough time has elapsed that the requirement is no longer applicable and thereby is not required to be in the renewal permit:</p> <ul style="list-style-type: none"> <li>• §63.9(b) is the initial notification, which has passed. Therefore, this is not included in the permit condition.</li> <li>• §63.9(c) is to request a compliance extension. Neither the application nor any technical correspondence indicates that this has been requested; therefore, this has been excluded from the permit condition.</li> <li>• §63.9(d) is the notification that a new source is subject to special compliance requirements. While the permittee has been granted a variance, none of the affected boilers are considered a new source; therefore, this has been excluded from the permit condition.</li> <li>• §63.9(h) is the NOCS requirement, which is applicable to P02 through P06 and P31. However, for the reasons discussed below under §63.7545(e) the NOCS is not included in the renewal permit.</li> </ul> <p>§63.7495(d) has been included in the citation of authority since it requires the permittee to meet the notification requirements in §63.7545.</p>
§63.7545(b)	None	None	This operating permit renewal is past the 120-day period after January 31, 2013; therefore, no permit condition is required.
§63.7545(c)	None	None	This section is not applicable since the units were constructed prior to January 31, 2013.
§63.7545(d)	P02-P06	4.5.5.	<p>This paragraph is applicable to P02 through P06 since they are subject to performance testing.</p> <p>This paragraph is not applicable to P31 since it is not subject to a Subpart DDDDD performance testing requirement.</p> <p>§63.7495(d) has been included in the citation of authority since it requires the permittee to meet the notification requirements in §63.7545.</p>
§63.7545(e)	None	None	The permittee has already completed the initial compliance demonstrations for P02 through P06 and P31, and submitted the NOCS, and there are no ongoing requirements for an NOCS. Therefore, no permit condition is warranted for any of the affected boilers.

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7545(f)	None	None	This requirement is not applicable to P02 through P06 since they do not combust any of the fuels listed in the first sentence of this requirement. This requirement is not applicable to P31 since the permittee does not intend to use a fuel other than natural gas in P31.
§63.7545(g)	None	None	This section is not applicable since the units will not combust solid waste.
§63.7545(h)	None	None	This requirement is not applicable since neither the application nor technical correspondence from the permittee indicates an intention to combust any fuel other than coal in P02 through P06 and natural gas in P31. If such a change were to be made in the future, the permittee will become subject to this requirement.
§63.7550(a)	P02-P06 P31	4.5.6. 5.5.3.	<p>This paragraph points to Table 9 of Subpart DDDDD, which requires a compliance report. The requirements in Table 9 are based on items that can vary as to applicability. Therefore, the condition is written based on applicable requirements in Table 9. This paragraph §63.7550(a) accounts for requirements a. through d. in permit condition 4.5.6., and a. and b. in permit condition 5.5.3.</p> <p>Since P02 through P06 are subject to emission limits, operating limits, and are on an annual tune-up frequency, but P31 is subject only to 5-year frequency tune-ups, two Compliance report permit conditions have been written to manage the requirements that apply to each unit, even though some information required in the report is common to both units.</p> <p>Items c. and d. in Table 9 are not included in permit condition 5.5.3. since P31 is not subject to emission limitations and does not utilize a CMS.</p>
§63.7550(b)	P02-P06 P31	4.5.6. 5.5.3.	The respective schedules for submitting compliance reports has been incorporated into the renewal permit conditions. The boilers P02 through P06 are subject to semi-annual reporting under this paragraph since they are subject to emission and operating limitations. The boiler P31 is subject to a 5-year frequency for submitting the compliance report in condition 5.5.3.
§63.7550(c)	P02-P06 P31	4.5.6. 5.5.3.	<p>Applicable paragraphs in §§63.7550(c)(1) through (5) have been included in condition 4.5.6. for P02 through P06.</p> <p>§63.7550(c)(1) has been included in conditions. The last sentence pertaining to paragraph (c)(5)(iv) for limited-use boilers has been excluded since none of the units are considered limited-use boilers.</p> <p>§63.7550(c)(2) does not apply to P02 through P06 since compliance will not be demonstrated by fuel analysis. In order to maintain the numbering in the permit condition, and in case of future compliance using fuel analysis, the sub-condition 4.5.6.a.(2) has been reserved. This paragraph is not applicable to P31 since it is not subject to Subpart DDDDD emission limitations.</p> <p>§63.7550(c)(3) is applicable to P02 through P6 since compliance will be demonstrated by performance testing. This paragraph is not applicable to P31 since it is not subject to Subpart DDDDD emission limitations.</p>

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
			<p>§63.7550(c)(4) does not apply to P02 through P06 since compliance will be demonstrated by performance testing rather than a CMS. Though the permittee operates a COMS, this is for compliance with the applicable operating limitation and not an emission limit. As such, this paragraph does not apply to P02 through P06. This sub-condition has been reserved for the same reason as sub-condition 4.5.6.a.(2). This paragraph is not applicable to P31 since it is not subject to Subpart DDDDD emission limitations.</p> <p>§63.7550(c)(5) contains elements of a compliance report that vary in applicability depending on the substantive requirements that apply and the compliance demonstration methodology utilized. Only the content of the items specified under applicable paragraphs §§63.7550(c)(1) and (3) are included from §63.7550(c)(5) for the coal-fired boilers in condition 4.5.6. Non-applicable content items have been reserved in condition 4.5.6. in case of a future change in the compliance demonstration methodology (e.g., if the permittee were to begin using fuel analysis). For the natural gas-fired boiler P31, only the requirements specified in §63.7550(c)(1) are applicable, and since there are not multiple applicable substantive requirements and compliance demonstration methodologies under the current regulation for P31, then only the applicable content items in §63.7550(c)(5) have been included in condition 5.5.3.</p>
§63.7550(d)	P02-P06	4.5.6.	<p>This requirement is applicable to P02 through P06 since the permittee is not utilizing a CMS to comply with HCl and Hg emission limitations. It has been included with sub-condition 4.5.6.c.</p> <p>This requirement is not applicable to P31 since it is not subject to Subpart DDDDD emissions or operating limitations.</p>
§63.7550(e)	P02-P06	4.5.6.	<p>This requirement is applicable to P02 through P06 since the permittee is utilizing a CMS to comply with applicable operating limitations. It has been included with sub-condition 4.5.6.d.</p> <p>This requirement is not applicable to P31 since it is not subject to Subpart DDDDD emissions or operating limitations.</p>
§63.7550(f) §63.7550(g)	None	None	<p>These paragraphs are reserved; therefore, no permit condition is needed.</p>
§63.7550(h)(1)	P02-P06	4.5.6.	<p>This reporting requirement pertaining to performance testing is applicable to P02 through P06, but not to P31.</p>
§63.7550(h)(2)	None	None	<p>Compliance for P02 through P06 will not be demonstrated with CEMS; therefore, this requirement is not applicable to them. Furthermore, P31 is not subject to an applicable Subpart DDDDD standard that would require CEMS; therefore, this requirement is not applicable to P31.</p>
§63.7550(h)(3)	P02-P06 P31	4.5.6. 5.5.3.	<p>Since this requirement pertains to the report required by Table 9 of Subpart DDDDD, then it is also written with the compliance report condition.</p>

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7555(a)	P02-P06 P31	4.4.9. 5.4.6.	<p>This applicable recordkeeping requirement is set forth as a permit conditions for the boilers. The language in this paragraph refers to semiannual compliance reports, which is applicable to P02 through P06. However, the permittee is required to submit a compliance report every five (5) years for P31. To clarify this, an italicized note has been added in permit condition 5.4.6.</p> <p>§63.7555(a)(3) has been excluded from both permit conditions since none of the units are considered limited-use boilers.</p>
§63.7555(b)	P02-P06	4.4.10.	<p>While the permittee does not operate a CEMS, it is required to operate a continuous monitoring system (CMS) to monitor operating the load, sorbent injection rate, and oxygen content for P02 through P06 during the period between performance tests, as well as a COMS to monitor opacity as an operating limit under Subpart DDDDD. Therefore, this requirement has been incorporated into the permit for the coal-fired boilers.</p> <p>This section is not applicable to P31 since it is not required by Subpart DDDDD to utilize a CEMS, COMS, or CMS.</p>
§63.7555(c)	P02-P06	4.4.11.	<p>This paragraph requires recordkeeping of applicable information in Table 8 to Subpart DDDDD, which are embodied in permit condition 4.2.14. Non-applicable regulation language regarding pressure drop and pH are excluded from the condition for clarity and precision.</p> <p>None of the requirements in this paragraph, or Table 8 that it references, are applicable to P31 since it is not subject to Subpart DDDDD emission limitations.</p>
§63.7555(d)(1)	P02-P06	4.4.8.	<p>This monthly fuel use recordkeeping requirement applies to P02 through P06, and has been incorporated into the requirement from §63.7540(a)(2) discussed above.</p> <p>None of the requirements in §63.7555(d)(1) through (11) apply to P31 since it is not subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart. Therefore, P31 will not be addressed in the discussions below of each paragraph.</p>
§63.7555(d)(2)	None	None	<p>P02 through P06 do not combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to §241.3(b)(1) and (2) of this chapter; therefore, this requirement is not applicable.</p>
§63.7555(d)(3)	P02-P06	4.4.12.	<p>This maximum chlorine fuel input recordkeeping requirement applies to P02 through P06 since performance testing is utilized to demonstrate compliance.</p>
§63.7555(d)(4)	P02-P06	4.4.13.	<p>This maximum mercury fuel input recordkeeping requirement applies to P02 through P06 since performance testing is utilized to demonstrate compliance.</p>
§63.7555(d)(5)	P02-P06	4.4.14.	<p>This recordkeeping requirement for change in frequency of stack testing frequency is applicable since the permittee will demonstrate compliance using performance (stack) testing.</p>
§63.7555(d)(6)	P02-P06	4.4.15.	<p>This recordkeeping requirement for occurrences of malfunctions is applicable.</p>
§63.7555(d)(7)	P02-P06	4.4.16.	<p>This recordkeeping requirement for actions taken in response during malfunctions is applicable.</p>
§63.7555(d)(8)	None	None	<p>This recordkeeping requirement for maximum TSM fuel input calculations is not applicable because the permittee is complying with the PM limitation.</p>

Subpart DDDDD Section	Affected Emission Unit	Title V	Discussion
§63.7555(d)(9)	P02-P06	4.4.17.	This recordkeeping requirement for startups and shutdowns is applicable.
§63.7555(d)(10)	P02-P06	4.4.18.	This recordkeeping requirement for fuels used during startups and shutdowns is applicable.
§63.7555(d)(11)	P02-P06	4.4.19.	This requirement is applicable since the permittee utilizes the paragraph (2) definition of “startup” in §63.7575. Furthermore, the variance requires the permittee to utilize the paragraph (2) definition of “startup”.
§63.7555(d)(12)	P02-P06	4.4.20.	This requirement is applicable since the permittee utilizes the paragraph (2) definition of “startup” in §63.7575. Since the permittee utilizes only a fabric filter (baghouse), and does not employ ESP or wet scrubber controls, §63.7555(d)(12)(i) and (iii) have been excluded from the permit condition.
§63.7555(d)(13)	None	None	This requirement allows a source that uses the paragraph (2) definition of “startup” to rely on paragraph (1) if unable to safely engage and operate the PM controls within 1 hour of first firing non-clean fuels. The purpose of the variance granted by U.S. EPA is to alleviate this problem, and the variance requires the permittee to rely upon the paragraph (2) definition and does not allow for use of paragraph (1). For these reasons, this section is not applicable and has been excluded from the renewal permit.
§§63.7555(e) and (f)	None	None	According to Attachment 3 of the NOCS dated June 9, 2016, the permittee is not utilizing emissions averaging or efficiency credits; therefore, no permit conditions are warranted for these paragraphs.
§63.7555(g)	None	None	This section is not applicable to P02 through P06 since they are not in the units designed to burn gas 1 subcategory. This section is not applicable to P31 since it is not required to meet the specification for mercury.
§63.7555(h)	None	None	This section is not applicable to P02 through P06 since they are not in the units designed to burn gas 1 subcategory. This section is not applicable to P31 since it does not combust any alternative fuel other than natural gas.
§§63.7560(a) through (c)	P02-P06 P31	4.4.21. 5.4.7.	These applicable recordkeeping requirements are set forth as a permit condition.

**7. 40 C.F.R. 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.** The applicable requirements of this regulation have already been incorporated into the operating permit. However, several changes have been made to permit conditions that contain Subpart ZZZZ requirements, which are discussed below.

- a. The 40hp engine P120 that powers an emergency generator uses liquid propane as fuel. It is a Generac EPS-25 per the renewal application. According to the manufacturer’s manual the engine is spark ignition (SI) type. However, the current permit condition 9.1.1. groups the engine with engines that are compression ignition (CI) type. The applicable requirement in Table 2c to Subpart ZZZZ is Item #6. The only substantive change is that the spark plugs must be inspected and replaced as necessary every 1,000 hours of operation, or annually, instead of inspecting the air cleaner. For these reasons, Item #6 has been added as a row in the table in renewal condition 9.1.1.a. In addition, the emission unit IDs for the engines have been added to each row to designate which engines are affected by the requirement. Footnote 2 for Table 2c has been revised to include reference to 63.6625(j) for SI engines and reference the permit conditions for the oil analysis options, which are further discussed below. Finally, the applicable item numbers have been added to the citation of authority following Table 2c.

- b. Current permit condition 9.1.1.d. sets forth an applicable requirement from Table 6 without specifying the applicable item number. Item 9 has been added to the citation of authority.
- c. Current permit condition 9.2.1. incorporates by reference §§63.6625(e), (f), (h), and (i). Since U.S. EPA guidance<sup>2</sup> provides that test method procedures and calculation methods may be IBR, and the requirements in the foregoing sections do not fall into these categories, the requirements have been written in the renewal operating permit as follows.
  - i. §63.6625(e) and (e)(2) have been incorporated into the permit as one coherent requirement in condition 9.1.2. as this is a standard rather than monitoring.
  - ii. §63.6625(f) has been incorporated into the permit as an emission standard condition 9.1.3.
  - iii. §63.6625(h) is already included in the operating permit in the third column of the table in permit condition 9.1.1.a. Therefore, §63.6625(h) has been added to the citation of authority for condition 9.1.1.
  - iv. §63.6625(i) has been incorporated into the permit as testing condition 9.3.1. Non-applicable regulation language has been excluded from the condition. The compression ignition engines P121, P122, and P123 have been added after the citation of authority to specify applicability.
- d. §63.6625(j) has been incorporated into the permit as testing condition 9.3.2. Non-applicable regulation language has been excluded from the condition. The spark ignition engine P120 has been added after the citation of authority to specify applicability.
- e. Current permit condition 9.4.1. requires the permittee to comply with recordkeeping requirements in §§63.6655(a), (b), (d), (e), and (f), but does not specify which of the requirements in these sections are applicable and does not include them in the permit. These sections have been analyzed below and incorporated into the permit accordingly.
  - i. §63.6655(a) is not applicable to P121, P122, P123 and P120, since none of the engines are subject to Subpart ZZZZ emission and operating limitations.
  - ii. §63.6655(b) is not applicable to P121, P122, P123 and P120, since none of the engines are required by Subpart ZZZZ to utilize CEMS or CPMS.
  - iii. §63.6655(d) requires the records in Table 6 to Subpart ZZZZ to show continuous compliance with each applicable emission or operating limitation. First, the engines are not subject to any Subpart ZZZZ emission or operating limitations. Second, there are no records specified in applicable item 9 in Table 6. Third, all the applicable content of Table 6 has been included in permit condition 9.1.1.d. For these reasons, §63.6655(d) is not applicable and has not been included in the renewal permit.

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<sup>2</sup> U.S. EPA's White Paper Number 2 for Improved Implementation of the Part 70 Operating Permit Program (March 5, 1996), located at <https://www.epa.gov/sites/production/files/2015-08/documents/wtppr-2.pdf> and accessed by the writer on February 9, 2016.

- iv. §63.6655(e) requires records of maintenance conducted on the types of stationary RICE listed in §§63.6655(e)(1) through (3). The permittee's engines qualify as existing stationary emergency RICE under §63.6655(e)(2); therefore, this requirement is applicable. Refer to renewal permit condition 9.4.1. which replaces the current permit content that IBR the recordkeeping requirements in §§63.6655(a), (b), (d), (e), and (f).
- v. §63.6655(f) requires records of the hours of operation of the stationary RICE listed in §§63.6655(f)(1) and (2). The permittee's engines qualify as existing stationary emergency RICE under §63.6655(f)(1); therefore, this requirement is applicable. Refer to renewal permit condition 9.4.2. The reference to §63.6640(f)(4)(ii) has been excluded since the source is not an area source. A parenthetical reference to permit condition 9.5.4.(2)(ii) has been added.
- f. Current permit condition 9.5.4. has been updated to reflect the current regulation language in §63.6640(f). The language in §63.6640(f)(4) has been excluded since it pertains to area sources of HAP.
- g. 45CSR34 has been added to the citations of authority for all permit conditions in Section 9.0 of the renewal operating permit.

#### 8. Miscellaneous Changes

- a. The mercury and hydrochloric acid control technology ID numbers have been added to the coal-fired boilers in subsection 1.1.
- b. The citation of authority in condition 4.1.10. was corrected such that 45CSR§7-4.3 has been changed to 45CSR§7-4.1.
- c. Current permit condition 4.2.2. was reserved. For the renewal it has been deleted and subsequent permit condition numbers have been revised.
- d. Current permit condition 4.2.5. has been revised to delete the statement regarding CAM implementation within 180 days of issuance of Title V permit R30-10700001-2012 (Part 10 of 14).

#### Non-Applicability Determinations

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

- a. **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.”** This subpart applies to each steam generating unit that commences construction or modification after August 17, 1971 and has a heat input capacity of more than 250 MMBtu/hr. The boilers in the Power and Service Support Area are less than 250 MMBTU/hr and Nos. 2, 3, 4, 5, and 6 Boilers were constructed prior to August 17, 1971.
- b. **40 C.F.R. 60, Subpart Da – “Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After September 18, 1978.”** This subpart applies to each steam generating unit that commences construction or modification after September 18, 1978 and has a heat input capacity of more than 250 MMBtu/hr. The boilers in the Power and Service Support Area are less than 250 MMBTU/hr and Nos.2, 3, 4, 5, and 6 Boilers were constructed prior to September 18, 1978.

- c. **40 C.F.R. 60, Subpart Db – “Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.”** This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984 and has a heat input capacity of greater than 100 MMBtu/hr. No. 8 Boiler is subject to this rule, but Nos.2, 3, 4, 5, and 6 Boilers were constructed prior to the June 19, 1984 applicability date and Nos.2 and 3 Boilers also have a heat input capacity of less than 100 MMBtu/hr.
- d. **40 C.F.R. 60, Subpart Dc – “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.”** This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 9, 1989 and has a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr. All the boilers in the Power and Service Support Area with a design heat input greater than or equal to 10 MMBtu/hr, but less than 100 MMBtu/hr were constructed prior to the June 9, 1989 applicability date.
- e. **40 C.F.R. 60, Subpart E – “Standards of Performance for Incinerators.”** The Power and Support Services Area does not operate any equipment which meets the definition of an incinerator as specified in 40 C.F.R. §60.51.
- 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.”** There are no petroleum liquid storage tanks in the Power and Service Support Area with a storage capacity greater than 151,412 liters, constructed, reconstructed, or modified after June 11, 1973 and prior to May 19, 1978.
- 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.”** There are no petroleum liquid storage tanks in the Power and Service Support Area with a storage capacity greater than 151,416 liters for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984.
- 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.”** There are no volatile organic liquid storage tanks in the Power and Service Support Area with a storage capacity greater than or equal to 75 m<sup>3</sup> for which construction, reconstruction, or modification commenced after July 23, 1984.
- i. **40 C.F.R. 60, Subpart O – “Standards of Performance for Sewage Treatment Plants.”** The Power and Service Support Area does not operate an incineration unit or boiler to burn sludge from a municipal sewage treatment plant.
- j. **40 C.F.R. 60, Subpart Y – “Standards of Performance for Coal Preparation Plants.”** This subpart applies to any facility that commences construction or modification after October 24, 1974. There are no coal handling facilities in the Power and Service Support Area that were constructed, modified, or reconstructed after the October 24, 1974 applicability date.
- k. **40 C.F.R. 60, Subpart VV - “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry.”** The Power and Service Support Area does not produce as intermediates or final products any of the materials listed in 40 C.F.R. §60.489.
- l. **40 C.F.R. 60, Subpart DDD - “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.”** The Power and Service Support Area does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.

- m. **40 C.F.R. 60, Subpart RRR - “Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.”** The Power and Service Support Area does not produce any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate.
- n. **40 C.F.R. 60, Subpart CCCC – “Standards of Performance for Commercial and Industrial Solid Waste Incineration units for Which Construction is Commenced after November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001.”** The Power and Service Support Area does not operate a commercial and industrial solid waste incineration (CISWI) unit as defined by 40 C.F.R. §60.2265.
- o. **40 C.F.R. 60, Subpart DDDD – “Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or Before November 30, 1999.”** The Power and Service Support Area does not operate a commercial and industrial solid waste incineration (CISWI) unit as defined by 40 C.F.R. §60.2875.
- p. **40 C.F.R. 61, Subpart V - “National Emission Standards for Equipment Leaks (Fugitive Emissions Sources).”** Applies to sources in VHAP service as defined in 40 C.F.R. §61.241. VHAP service involves chemicals that are not used in a manner that qualifies them under the rule in the Power and Service Support Area.
- q. **40 C.F.R. 61, Subpart FF – “National Emission Standard for Benzene Waste Operations.”** The Power and Service Support Area, specifically the Wastewater Treatment Plant, is not subject to this subpart other than the requirements of 40 C.F.R. §61.342(a) to perform an annual assessment of applicability and the record keeping requirements of 40 C.F.R. §§61.356(a) and 61.356(b).
- r. **40 C.F.R. 63, Subpart F – “National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry.”** 40 C.F.R. 63 Subparts F, G, and H do not apply to manufacturing process units that do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).
- s. **40 C.F.R. 63, Subpart G – “National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.”** 40 C.F.R. 63, Subpart G does not apply to the Power and Service Support Area because they do not handle or treat a Group 1 wastewater stream. Applicable recordkeeping and reporting requirements for Group 2 wastewater streams are the responsibility of the producing area subject to the MACT standard and not the wastewater treatment area.
- t. **40 C.F.R. 63, Subpart H - “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.”** 40 C.F.R. 63 Subpart H does not apply to manufacturing process units that do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).
- u. **40 C.F.R. 63, Subpart Q – “National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.”** The Power and Service Support Area does not operate any cooling towers using chromium based treatment chemicals.
- v. **40 C.F.R. 63, Subpart T – “National Emission Standards for Halogenated Solvent Cleaning.”** The Power and Service Support Area does not operate any solvent cleaning machines containing the halogenated cleaning solvents specified in 40 C.F.R. §63.460(a).

- w. **40 C.F.R. 63, Subpart DD – “National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.”** This subpart applies to units that receive waste/wastewater from off-site operations for treatment or recovery and the off-site waste contains hazardous air pollutants. This subpart does not apply to the Wastewater Treatment Plant at Chemours Washington Works because the treatment of off-site wastewater is not the predominate activity performed at the Washington Works facility as required in 40 C.F.R. §63.680(a)(2)(iii)(B).
- x. **40 C.F.R. 63, Subpart EEE – “National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors.”** The Power and Service Support Area does not operate any equipment meeting the definition of a hazardous waste combustor as specified in 40 C.F.R. §63.1201(a).
- y. **40 C.F.R. 63, Subpart JJJ - “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.”** The Power and Service Support Area does not produce the materials listed in 40 C.F.R. §63.1310.
- z. **40 C.F.R. 63, Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline).”** The Power and Service Support Area does not operate an organic liquids distribution (OLD) operation or does not handle material organic liquids as defined in §63.2406.
- aa. **40 C.F.R. 82, Subpart B - “Protection of Stratospheric Ozone.”** This subpart requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing the equipment need to be licensed. The Power and Service Support Area does not conduct motor vehicle maintenance involving CFCs on site.
- bb. **40 C.F.R. 82, Subpart C – “Protection of Stratospheric Ozone.”** This subpart bans non-essential products containing Class I substances and bans non-essential products containing or manufactured with Class II substances. The Power and Service Support Area does not use, manufacture, nor distribute these materials.
- cc. **45CSR5 – “To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas.”** The Power and Service Support Area operates the coal storage and handling facilities under the requirements of 45CSR2 and does not operate a separate coal preparation plant or a coal refuse disposal area that would be subject to 45CSR5.
- dd. **45CSR6 – “To Prevent and Control Air Pollution from Combustion of Refuse.”** The Power and Service Support Area does not engage in the combustion of refuse in any installation or equipment.
- ee. **45CSR18 – “To Prevent and Control Emissions from Commercial and Industrial Solid Waste Incineration Units.”** The Power and Service Support Area does not operate any equipment defined by 45CSR§18-2.3 as a commercial and industrial solid waste incineration (CISWI) unit.
- ff. **45CSR§21-40 – “Other Facilities that Emit Volatile Organic Compound (VOC).”** None of the emission sources in the Power and Service Support Area have maximum theoretical emissions of 6 pounds per hour or more and are subject to the requirements of this section. In addition, 45CSR§21-40.1.d. specifically exempts wastewater treatment facilities from the requirements in 45CSR§21-40.

### **Request for Variances or Alternatives**

The permittee requested a variance to the work practice standards pertaining to the coal-fired boiler startups specified in 40 C.F.R. 63, Subpart DDDDD. Refer to the discussion of Subpart DDDDD in the Determinations and Justifications section of this Fact Sheet for details concerning the variance granted by U.S. EPA.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: April 28, 2017  
Ending Date: May 30, 2017

### **Point of Contact**

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

Denton B. McDerment, PE  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478  
[denton.b.mcderment@wv.gov](mailto: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)**

No comments were received from either the public or U.S. EPA.