West Virginia Department of Environmental Protection
Division of Air Quality

Jim Justice
Governor

Austin Caperton
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
The Chemours Company FC, LLC
Washington Works
Power and Service Support (Part 10 of 14)
R30-10700182-2017

William F. Durham
Director

Issued: June 13, 2017 • Effective: June 27, 2017
Expiration: June 13, 2022 • Renewal Application Due: December 13, 2021

Permit Number: **R30-10700182-2017**
Permittee: **The Chemours Company FC, LLC**
Facility Name: **Washington Works**
Business Unit: **Power and Service Support (Part 10 of 14)**
Permittee Mailing Address: **P.O. Box 1217 – Building 1, Washington, WV 26181-1217**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Washington, Wood County, West Virginia
Facility Mailing Address:	P. O. Box 1217, Washington, WV 26181-1217
Telephone Number:	(304) 863-4240
Type of Business Entity:	Corporation
Facility Description:	Boilers for steam production and water and wastewater treatment facilities.
SIC Codes:	2821
UTM Coordinates:	422.27 km Easting • 4,346.57 km Northing • Zone 17

Permit Writer: Denton B. McDerment

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
			Boilers, Coal Handling, and Ash Handling		
475	P102C[1] P202C	P02	No. 2 Boiler (Coal Fired, Spreader-Stoker)	64.2 MMBtu/hr	1947
476	P103C P203C	P03	No. 3 Boiler (Coal Fired, Spreader-Stoker)	94 MMBtu/hr	1957
	P104C P204C	P04	No. 4 Boiler (Coal Fired, Spreader-Stoker)	125 MMBtu/hr	1959
477	P105C P205C	P05	No. 5 Boiler (Coal Fired, Spreader-Stoker)	181 MMBtu/hr	1963
	P106C P206C	P06	No. 6 Boiler (Coal Fired, Spreader-Stoker)	241 MMBtu/hr	1965
479	P31C Low NO_x Generation Burners, Lean Burn Controls, and Flue Gas Recirculation	P31	No. 8 Boiler (Natural Gas)	181 MMBtu/hr	1989
474	None	P835	# 1 (Horizontal) Sulfuric Acid Tank	11,600 gallons	1997
		P836	#2 (Vertical) Sulfuric Acid Tank	18,651 gallons	1988
490	Manual Spray	P116	Coal Storage Pile	PTE - 12,000 tons AVG - 4,500 tons	1947
	None	P117	Roadways in Area	N/A	1947
	None	P118	Coal Handling System	100 TPH	1947
	None	P118-1	Coal Screener	100 TPH	1947
	None	P118-2	Coal Crusher	100 TPH	1947
	None	P118-3	Coal Conveyor	100 TPH	1947
	None	P118-4	Coal Bucket Elevator	100 TPH	1947

[1] For all the coal-fired boilers P02 through P06, the P100C series of control device IDs are single stage mechanical dust collector/baghouse for control of PM. The P200C series are the sorbent injection control technology for control of HCl and Hg.

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
	Enclosed Building	P118E	Boiler Coal Bunker Discharge Area	#2 – 110 Tons #3 – 125 Tons #4 – 150 Tons #5 – 220 Tons #6 – 290 Tons	Varies depending on boiler installation dates.
491	P107C1 and P107C2 Cyclone Separators P107C3 Baghouse Filter Unit	P107	Bottom Ash Handling System - Conveyor	5 TPH	1947; modified 1974
	None	P107E	Bottom Ash Blower Vent	2,538 ICFM	1974
	None	P109	Bottom Ash Storage Silo	4,180 ft^2	1947
	Water Spray	P111	Bottom Ash Truck Unloader	75 TPH	1947
492	None	P113	Fly Ash Storage Silo	15,076 ft^2	1947; modified 1974
	P114C1 Filter Separator P114C2 Baghouse Filter Unit	P114	Fly Ash Handling System – Conveyor	10 TPH	1974
	None	P114E	Fly Ash Blower Vent	1,750 ICFM	1974
	Water Spray	P115	Fly Ash Truck Unloader	75 TPH	1974
493	P130C	P130E	North Sorbent Silo	4546 ft^3	2007
493	P131C	P131E	South Sorbent Silo	4546 ft^3	2007
			Cooling Towers		
470	None	P901	B344 #8 CAC – Cooling Tower	N/A	2000
471	None	P902	B327 #7 CAC/B156 #9 IR – Cooling Tower	N/A	2000
472	None	P904	B328 #10 IR – Cooling Tower	N/A	2000
473	None	P906	B206 #11 IR – Cooling Tower	N/A	2000

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
			Water and Wastewater Treatment		
480	None	P201	WWTP Equalization Tank	2,200,000 gallons	1973
		P202	WWTP Emergency Tank	2,200,000 gallons	1973
		P205-1	WWTP Mix Tank	4,800 gallons	1973
		P205-2	WWTP Splitter Box	1,500 gallons	1973; modified 1988
		P206	WWTP Aeration Tank – East	1,200,000 gallons	1973
		P207	WWTP Aeration Tank – Center	1,200,000 gallons	1973
		P208	WWTP Aeration Tank – West	1,200,000 gallons	1988
		P209	WWTP De-aeration Tank	9,950 gallons	1980
		P210	WWTP Clarifier Tank – East	142,500 gallons	1973
		P211	WWTP Clarifier Tank – Center	142,500 gallons	1973
		P212	WWTP Clarifier Tank – West	142,500 gallons	1980
		P214	WWTP Area Sump – Emergency	463 gallons	1976
		P215	WWTP Area Sump – Clarifiers	8,525 gallons	1973
		P218	WWTP De-watering Facility Sump	5,280 gallons	1996
480	P216-5C Dust Collector	P216-5	WWTP Filter Aid Slurry Tank	5,000 gallons	1995
P229	None	P229	WWTP Liquid Waste Pumping Facility	40 gpm	Early 1990s
			Miscellaneous		
484	None	P302	B12 Parts Washer	100 gallons	Mid 1980s
	P303C Baghouse Filter Unit	P303	B12 Bead Blasting Unit	85 psi	2003
483	None	P505	Diesel Fuel Storage Tank	3,000 gallons	1995

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
486	None	P506	Diesel Fuel Storage Tank	3,000 gallons	1995
485	None	P304	Boiler Overhaul Parts Washer	80 gallons	Mid 1980s
494	None	P120	Emergency Generator – ICE	40 HP LP	1999
495	None	P121	#4 Emergency Fire Pump	270 HP diesel	1969
496	None	P122	#1 Emergency Fire Pump	288 HP diesel	1983
497	None	P123	#2 Emergency Fire Pump	288 HP diesel	1986

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R14 - 14	01/02/2002
R13-3223	12/8/2014
R13-2654D	9/17/2015

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information		
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**PM_{10}**	Particulate Matter less than 10μm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**pph**	Pounds per Hour
C.S.R. *or* CSR	Codes of State Rules	**ppm**	Parts per Million
DAQ	Division of Air Quality	**PSD**	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	**psi**	Pounds per Square Inch
FOIA	Freedom of Information Act	**SIC**	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr *or* lb/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
m	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
mm	Million		
mmBtu/hr	Million British Thermal Units per Hour	**UTM**	Universal Transverse Mercator
$mmft^3$/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour	**VEE**	Visual Emissions Evaluation
NA *or* N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c. **[45CSR§30-5.1.b.]**

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration. **[45CSR§30-4.1.a.3.]**

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3. **[45CSR§30-6.3.b.]**

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. **[45CSR§30-6.3.c.]**

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. **[45CSR§30-5.1.f.3.]**

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations. **[45CSR§30-5.1.f.2.]**

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof. **[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding. **[45CSR§30-5.3.e.3.B. and 45CSR38]**

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect. **[45CSR§30-5.1.e.]**

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege. **[45CSR§30-5.1.f.4]**

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. The permittee shall comply with all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points identified in Appendix D of this permit.
[45CSR13, R13-3223, 4.1.1.]

3.1.10. The permitted sources identified in Appendix D of this permit and recognized as being subject to 45CSR21 shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix D of this permit, are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following: **[45CSR13, R13-3223, 4.1.2.]**

3.1.10.1. The permittee shall maintain the aggregated hourly and annual VOC control efficiency of 90% or greater, on a site-wide basis, for all existing sources listed or required to be listed as part of the original facility-wide Reasonably Available Control Measures (RACM) plan, as identified in Appendix D of this permit.
[45CSR13, R13-3223, 4.1.2.1. and 45CSR§21-40.3.a.1. State-Enforceable only]

3.1.10.2. On or after May 01, 1996, construction or modification of any emission source resulting in a maximum theoretical emissions (MTE) of VOCs equaling or exceeding six (6) pounds per hour and not listed or required to be listed in the facility-wide RACM plan shall require the prior approval by the Director of an emission control plan that meets the definition of reasonable available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All sources constructed or modified on or after May 01, 1996 shall be subject to the following: **[45CSR13, R13-3223, 4.1.2.2. and 45CSR§21-40.3.c. State-Enforceable only]**

a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13.
[45CSR13, R13-3223, 4.1.2.2.a. and 45CSR§21-40.4.e. State-Enforceable only]

b. The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 3.1.10.1. of this permit.
[45CSR13, R13-3223, 4.1.2.2.b.]

3.1.10.3. If a modification to an existing source with current MTE below the threshold of six (6) pounds per hour of VOCs causes an increase in the MTE that results in the source exceeding the six (6) pounds per hour threshold for the first time, the source shall be subject to RACT in accordance to Section 3.1.10.2. of this permit. **[45CSR13, R13-3223, 4.1.2.3. and 45CSR§21-40.3.c. State-Enforceable only]**

3.1.10.4. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed as part of the facility-wide RACM plan, that results in an increase in VOC emissions of any amount, shall require the prior approval by the Director of an emission control plan that meets the definition of RACT on a case-by-case basis for both fugitive and non-fugitive VOC emissions from the source. All sources modified on or after May 01, 1996 shall be subject to the following: **[45CSR13, R13-3223, 4.1.2.4. and 45CSR§21-40.3.c. State-Enforceable only]**

a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-3223, 4.1.2.4.a. and 45CSR§21-40.4.e. State-Enforceable only]**

b. The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s). **[45CSR13, R13-3223, 4.1.2.4.b.]**

c. The MTE and associated emission reductions of the modified source shall be recalculated as part of the site-wide aggregate hourly and annual emissions reduction requirements to demonstrate compliance with the minimum 90% reduction rate as set forth in Section 3.1.10.1. of this permit. **[45CSR13, R13-3223, 4.1.2.4.c.]**

3.1.10.5. In the event the facility-wide RACM plan is modified to delete an existing emission source, and any associated pollution control equipment, due to the source being permanently removed from service, or reassigned to service not subject to the requirements of 45CSR21-40, the MTE shall be recalculated to demonstrate that the 90% facility-wide VOC reduction requirement set forth in Section 3.1.10.1. of this permit is still being met. In the event such a modification results in the site-wide aggregate hourly and annual emissions reduction being recalculated to a rate less than 90%, the RACM plan shall be revised to include all new and/or modified sources and their associated control technologies constructed on or after May 01, 1996, in order to meet the requirements set forth in Section 3.1.10.1. of this permit. **[45CSR13, R13-3223, 4.1.2.5.]**

3.1.10.6. In the event a source and associated emission point identified in Appendix D of this permit is subject to the New Source Performance Standards (NSPS) of 40CFR60, the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40CFR61, or the Maximum Achievable Control Technology (MACT) standards of 40CFR63, then compliance with such requirements as defined in the affected 45CSR13 permit shall demonstrate compliance with the RACT requirements set forth in this permit **[45CSR13, R13-3223, 4.1.2.6.]**

3.1.11. The permitted sources identified in Appendix D of this permit and recognized as being subject to 45CSR27 shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix D of this permit, are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following:

3.1.11.1. The permittee shall employ the best available technology (BAT) for the purpose of reducing toxic air pollutants (TAP) associated with the applicable sources and emission points identified in Appendix D of this permit.
[45CSR13, R13-3223, 4.1.3.1. and 45CSR§27-3.1. State-Enforceable only]

3.1.11.2. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routine leakage from those sources and their associated equipment identified in Appendix D of this permit as operating in TAP service.
[45CSR13, R13-3223, 4.1.3.2. and 45CSR§27-4.1. State-Enforceable only]

3.1.12. In the event a source and associated emission point identified in Appendix D of this permit are subject to the MACT standards of 40CFR63, then compliance with the applicable MACT requirements identified in the affected 45CSR13 permit shall demonstrate compliance with the BAT requirements set forth in Section 3.1.11. of this permit.
[45CSR13, R13-3223, 4.1.4. and 45CSR§27-3.1. State-Enforceable only]

3.2. Monitoring Requirements

3.2.1. The permittee shall implement and maintain leak detection and repair (LDAR) programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to 45CSR21-40 producing a product or products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of 45CSR21-37 or alternate procedures approved by the Director. Procedures approved by the Director 40CFR60, Subpart VV, 40CFR61, Subpart V, 40CFR63, Subpart H, 40CFR63, Subpart TT, 40CFR63, Subpart UU, 40CFR65, Subpart F, and 40CFR265, Subpart CC. This requirement shall apply to all units identified in Appendix D of this permit irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40CFR60, 40CFR61, or 40CFR63.
[45CSR13, R13-3223, 4.2.1. and 45CSR§21-40.3.a.2. State-Enforceable only]

3.2.2. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Appendix D of this permit in order to reduce the emissions of TAP in accordance with the requirements of 40CFR63, Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks. Compliance with 40CFR63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR27-4. - Fugitive Emissions of Toxic Air Pollutants.
[45CSR13, R13-3223, 4.2.2. and 45CSR§27-4.1. State-Enforceable only]

3.2.3. In the event a source and associated emission point identified in Appendix D of this permit are subject to the MACT standards of 40CFR63, then compliance with any applicable LDAR program set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the monitoring requirements set forth in this permit.
[45CSR13, R13-3223, 4.2.3., 45CSR§21-37.1.c. and 45CSR§27-4.1. State-Enforceable only]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.3.2. Manufacturing process units may be exempted upon written request of the permittee to the Director. Exempted units are exempted from the frequency of testing as described in 45CSR21-37, however, LDAR testing of this unit or certification of emission using approved fugitive emission factors will be required every three years, or upon request by the Director or his duly authorized representative. Waiver or scheduling of LDAR testing every three years may be granted by the Director if written request and justification are submitted by the permittee. Units exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verifications by the permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced.
[45CSR13, R13-3223, 4.3.1. and 45CSR§21-40.3.a.2. State-Enforceable only]

3.3.3. In the event a source and associated emission point identified in Appendix D of this permit are subject to the MACT standards of 40CFR63, then compliance with the applicable LDAR testing requirements set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the LDAR testing requirements set forth in this permit.
[45CSR13, R13-3223, 4.3.2., 45CSR§21-37.1.c. and 45CSR§27-4.1. State-Enforceable only]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-3223, 4.4.1 and R13-2654, 5.4.1.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. Unless granted a variance pursuant to 45CSR21, Section 9.3, or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40CFR63.6(e) or another applicable Section of 40CFR63, the owner or operator of the facility shall operate all emission control equipment listed in Appendix D of this permit as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shutdown or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR21, Section 9.3 with respect to all periods of non-compliance with the emission limitations set forth in the affected 45CSR13 permits and the emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment.
[45CSR13, R13-3223, 4.4.4.]

3.4.5. The permittee shall maintain records of the results of all monitoring and inspections, emission control measures applied and the nature, timing, and results of repair efforts conducted in accordance to 45CSR§27-10. and set forth in the affected 45CSR13 permits as identified in Appendix D of this permit.
[45CSR13, R13-3223, 4.4.5.]

3.4.6. Your site remediation activities are not subject to the requirements of 40 C.F.R. 63, Subpart GGGGG, except for the recordkeeping requirements in this paragraph, provided that you meet the requirements specified in paragraphs 3.4.6.1 through 3.4.6.3 of this section.

3.4.6.1. You determine that the total quantity of the HAP listed in Table 1 of 40 C.F.R. 63, Subpart GGGGG that is contained in the remediation material excavated, extracted, pumped, or otherwise removed during all of the site remediations conducted at your facility is less than 1 mega gram (Mg) annual. This exemption applies the 1 Mg limit on a facility-wide, annual basis, and there is no restriction to the number of site remediations that can be conducted during this period.

3.4.6.2. You must prepare and maintain at your facility written documentation to support your determination that the total HAP quantity in your remediation materials for the year is less than 1 Mg. The documentation must include a description of your methodology and data used for determining the total HAP content of the remediation material.

3.4.6.3. Your Title V permit does not have to be reopened or revised solely to include the recordkeeping requirement specified in 3.4.6.2. However, the requirement must be included in your permit the next time the permit is renewed, reopened, or revised for another reason.

[40 C.F.R. §63.7881(c); 45CSR34]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:	**US EPA:**
Director WVDEP Division of Air Quality 601 57th Street SE Charleston, WV 25304	Associate Director Office of Air Enforcement and Compliance Assistance (3AP20) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. **[45CSR§30-8.]**

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:	**US EPA:**
DEPAirQualityReports@wv.gov	R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:

DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.5.10. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) days of notification by the Director that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 01, 1996) has occurred. Such plan shall included those sources listed in Appendix D of this permit as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.
[45CSR13, R13-3223, 4.5.1.]

3.6. Compliance Plan

3.6.1. Reserved.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

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^3 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.

4.0 Requirements for Nos. 2, 3, 4, 5, and 6 Boilers, Coal Handling, and Ash Handling (Em. Unit IDs: P02, P03, P04, P05, and P06; Em. Pt. IDs: 475, 476, and 477)

4.1. Limitations and Standards

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. These visible emission standards shall apply at all times except in periods of start-ups, shutdowns and malfunctions.
[45CSR§§2-3.1 and 9.1] *(emission points 475, 476, and 477)*

4.1.2. Particulate matter emissions from Boiler Nos. 2, 3, 4, 5, and 6 shall not exceed 63.47 lb/hr. The allowable emission rates for individual stacks are specified in the approved monitoring plan (See Appendix A).
[45CSR§§2-4.1.c and 4.2; 45CSR§2A-4.2] *(emission points 475, 476, and 477)*

4.1.3. No person shall cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:

a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;

b. Transport of ash in vehicles or on conveying systems, to include spillage, tracking or blowing of particulate matter from or by such vehicles or equipment; and

c. Ash or fuel handling systems and ash disposal areas.

Methods to minimize fugitive particulate matter are set forth in the approved monitoring plan (See Appendix A).

[45CSR§2-5.1]

4.1.4. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§2-9.2]

4.1.5. Sulfur dioxide emissions from Boiler Nos. 2, 3, 4, 5, and 6 shall not exceed 2,186.12 lb/hr. The allowable emission rates for individual stacks are specified in the approved monitoring plan (See Appendix B).
[45CSR§§10-3.1.e and 3.4; 45CSR§10A-4.1] *(emission points 475, 476, and 477)*

4.1.6. In the event of an unavoidable shortage of fuel having characteristics or specifications necessary for a fuel burning unit to comply with the visible emission standards set forth in 4.1.1 or any emergency situation or condition creating a threat to public safety or welfare, the Director may grant an exception to the otherwise applicable visible emission standards for a period not to exceed fifteen (15) days, provided that visible emissions during the exception period do not exceed a maximum six (6) minute average of thirty (30) percent and that a reasonable demonstration is made by the owner or operator that the emissions standards under 4.1.2 will not be exceeded during the exemption period.
[45CSR§2-10.1]

4.1.7. Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 4.1.5 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR§10-9.1]

4.1.8. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in Section 4.1.9 of this permit.
[45CSR§7-3.1] *(Sorbent Silos; Emission Point I.D. 493)*

4.1.9. The provisions of Section 4.1.8 of this permit shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2] *(Sorbent Silos; Emission Point I.D. 493)*

4.1.10. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified as follows:

Emission Point	45CSR7 Hourly Particulate Emission Limit – PPH
493	32.2

[45CSR§§7-4.1 and 4.4] *(Sorbent Silos; Emission Point I.D. 493)*

4.1.11. **40 C.F.R. 63 Subpart DDDDD Emission Limitations for Boilers P02, P03, P04, P05, and P06.** As stated in §63.7500, you must comply with the following applicable emission limits:

If your boiler or process heater is in this subcategory . . .	**For the following pollutants . . .**	**The emissions must not exceed the following emission limits, except during startup and shutdown . . .**	**Using this specified sampling volume or test run duration . . .**
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.2E-02 lb per MMBtu of heat input	For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.
	b. Mercury	5.7E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784[b] collect a minimum of 3 dscm.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
2. Units design to burn coal/solid fossil fuel	b. Filterable PM (or TSM)	4.0E-02 lb per MMBtu of heat input; (or 5.3E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
4. Stokers/others designed to burn coal/solid fossil fuel	a. CO	160 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	1 hr minimum sampling time.

[b] Incorporated by reference, see §63.14.

These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with items 5 and 6 of Table 3 to this subpart (permit conditions 4.1.14. and 4.1.15.).

[40 C.F.R. §§63.7500(a) and (a)(1), Table 2, Items 1, 2, and 4; 40 C.F.R. §§63.7500(f) and 63.7505(a); 45CSR34]

4.1.12. **Annual Tune-ups for Boilers P02, P03, P04, P05, and P06.** If your unit is a new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater, you must conduct a tune-up of the boiler or process heater annually as specified in §§63.7540(a)(10)(i) through (vi).

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (A) through (C) of this condition,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

- Each annual tune-up specified in §63.7540(a)(10) must be conducted no more than 13 months after the previous tune-up.

- If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[40 C.F.R. §63.7500(a)(1), Table 3, Item 3; 40 C.F.R. §§63.7540(a)(10)(i)-(vi); 40 C.F.R. §§63.7505(a), 63.7515(d), and 63.7540(a)(13); 40 C.F.R. §63.7530(h); 45CSR34]

4.1.13. **One-time Energy Assessment**. If your unit is an existing boiler or process heater located at a major source facility, you must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in §63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in §63.7575:

a. A visual inspection of the boiler or process heater system.

b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.

c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.

d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.

e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.

f. A list of cost-effective energy conservation measures that are within the facility's control.

g. A list of the energy savings potential of the energy conservation measures identified.

h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 C.F.R. §63.7500(a)(1), Table 3, Item 4; 40 C.F.R. §§63.7505(a) and 63.7530(h); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.14. **Startup Requirements.** If your unit is an existing or new boiler or process heater subject to emission limits in Table 2 to this subpart, during startup you must meet the following:

a. You must operate all CMS during startup.

b. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis.

c. You must comply using the following work practice standard.

2. Since you must comply using definition (2) of "startup" in §63.7575 in accordance with the U.S. EPA variance granted in its letter dated March 15, 2016, once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy. You must engage and operate PM control within four hours of first feeding fuels that are not clean fuels. You must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. You must develop and implement a written startup and shutdown plan, as specified in §63.7505(e).

d. You must comply with all applicable emission limits at all times except during startup and shutdown periods at which time you must meet this work practice. You must collect monitoring data during periods of startup, as specified in §63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.7555.

[40 C.F.R. §63.7500(a)(1), Table 3, Item 5; 40 C.F.R. §§63.7530(h) and 63.7540(d); 45CSR34; Letter dated March 15, 2016, from Nikos Singelis, Acting Director – Air Protection Division – U.S. EPA *to* Mr. Robert J. Fehrenbacher, Plant Manager – The Chemours Company, Washington Works] *(P02, P03, P04, P05, and P06)*

4.1.15. **Shutdown Requirements**. If your unit is an existing or new boiler or process heater subject to emission limits in Table 2 to this subpart, during shutdown you must meet the following:

You must operate all CMS during shutdown.

While firing fuels that are not clean fuels during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR but, in any case, when necessary to comply with other standards applicable to the source that require operation of the control device.

If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, refinery gas, and liquefied petroleum gas

You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in §63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in §63.7555.

[40 C.F.R. §63.7500(a)(1), Table 3, Item 6; 40 C.F.R. §§63.7530(h) and 63.7540(d); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.16. **Opacity.** When complying with a Table 2 numerical emission limit using a fabric filter control on a boiler or process heater not using a PM CPMS, you must meet this operating limit:

Maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average).

Note: Compliance with the 10 percent opacity standard on a 6-minute block average specified in permit condition 4.1.1. ensures compliance with this daily block average opacity limitation.

[40 C.F.R. §63.7500(a)(2), Table 4, Item 3.a.; 40 C.F.R. §63.7505(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.17. **Sorbent Injection Rate**. When complying with a Table 2 numerical emission limit using a dry scrubber on a boiler or process heater not using a mercury CEMS, you must maintain the minimum sorbent injection rate as defined in §63.7575 of 40 C.F.R. 63 Subpart DDDDD.

Minimum sorbent injection rate means the load fraction multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Load fraction means the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (*e.g.,* for 50 percent load the load fraction is 0.5). For boilers and process heaters that co-fire natural gas or refinery gas with a solid or liquid fuel, the load fraction is determined by the actual heat input of the solid or liquid fuel divided by heat input of the solid or liquid

fuel fired during the performance test (*e.g.*, if the performance test was conducted at 100 percent solid fuel firing, for 100 percent load firing 50 percent solid fuel and 50 percent natural gas the load fraction is 0.5).

[40 C.F.R. §63.7500(a)(2), Table 4, Item 5; 40 C.F.R. §§63.7505(a) and 63.7575; 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.18. **Operating Load.** When complying with a Table 2 numerical emission limit using performance testing, you must meet this operating limit:

For boilers and process heaters that demonstrate compliance with a performance test, maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test.

[40 C.F.R. §63.7500(a)(2), Table 4, Item 7; 40 C.F.R. §63.7505(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.19. **Oxygen Analyzer System.** When complying with a Table 2 numerical emission limit using an oxygen analyzer system, you must meet this operating limit:

For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O_2 analyzer system as specified in §63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in §63.7525(a).

[40 C.F.R. §63.7500(a)(2), Table 4, Item 8; 40 C.F.R. §63.7505(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.20. At all times, you must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 C.F.R. §63.7500(a)(3); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.1.21. If you have an applicable emission limit, and you choose to comply using definition (2) of "startup" in §63.7575, you must develop and implement a written startup and shutdown plan (SSP) according to the requirements in Table 3 to 40 C.F.R. 63 Subpart DDDDD (permit condition 4.1.14.). The SSP must be maintained onsite and available upon request for public inspection.
[40 C.F.R. §63.7505(e); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2. Monitoring Requirements

4.2.1. For the purpose of demonstrating compliance with the 4.1.1 opacity limits for emission points 476 and 477, the permittee shall conduct testing and/or monitoring as set forth in the approved monitoring plan (See Appendix A).
[45CSR§§2-3.2, 8.1.a, and 8.2.a; 45CSR§§2A-5.1.a and 6.3]

4.2.2. For the purpose of demonstrating compliance with the 4.1.5 weight emission standards for emission points 475, 476 and 477, the permittee shall conduct testing and/or monitoring as set forth in the approved monitoring plan (See Appendix B).
[45CSR§10-8.2.c; 45CSR§§10A-6.1 and 6.4]

4.2.3. For the purpose of demonstrating compliance with the emission limitation contained in 4.1.8, the permittee shall conduct opacity monitoring and record keeping for emission point 493. Monitoring shall be conducted at the start of every unloading into the Sorbent Silos (P130E & P131E) which vent out emission point 493. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60 Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (but no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within three (3) days of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.
[45CSR§30-5.1.c] *(Sorbent Silos; Emission Point I.D. 493)*

CAM Monitoring Requirements:

4.2.4. The permittee shall maintain a differential pressure transmitter on each baghouse for pressure drop observations. The differential pressure transmitters (including gauge and reader), mounted on each baghouse, shall be examined annually to ensure they are functioning properly. Readings shall be averaged on a daily basis. The daily readings shall exclude SSM operations from this average. If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and recordkeeping and reporting shall be initiated. If the number of excursions for bag house differential pressure exceeds 5 percent of the total days operated for the boilers during a 6-month semiannual reporting period, a QIP must be addressed. In accordance with the operation of the P102C and P103C (baghouses) an excursion shall be defined as a daily average pressure drop of less than 0.75 inches W.C.
[40 C.F.R. §§ 64.3(a), 64.3(b) and 64.6(c)(2), 64.8(a), 64.4(e); 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.2.5. **Response to Excursions or Exceedances.**

a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or

b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

[40 C.F.R. §64.7(d); 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.2.6. **Documentation of Need for Improved Monitoring** - After approval of monitoring under 40 C.F.R. Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 C.F.R. §64.7(e); 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.2.7. **Quality Improvement Plan (QIP)**

a. Based on the results of a determination made under permit condition 4.2.5 the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, it shall be developed, implemented, and modified as required according to 40 C.F.R. §§64.8(b) through (e). Refer to permit condition 4.5.3(b)(iii) for the reporting required when a QIP is implemented.

b. If five (5) percent or greater of the total days operated, is documented as an excursion during a 6-month, semiannual period, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require testing to be conducted at any time.

[40 C.F.R. §64.8; 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.2.8. If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits through the use of CPMS, or with a CEMS or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of 40 C.F.R. §63.7505 for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

1. For each CMS required in §63.7505 (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in §63.8(d) and the elements described in paragraphs (1)(i) through (iii) of this condition. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of §63.7525. Using the process described in §63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality

control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

2. In your site-specific monitoring plan, you must also address paragraphs (2)(i) through (iii) of this condition.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c) (as applicable in Table 10 to 40 C.F.R. 63 Subpart DDDDD), (e)(1), and (e)(2)(i).

3. You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

4. You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

[40 C.F.R. §§63.7505(d) and (d)(1) through (d)(4); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.9. If your boiler or process heater is subject to a CO emission limit in Table 2 to 40 C.F.R. 63 Subpart DDDDD, you must install, operate, and maintain an oxygen analyzer system, as defined in §63.7575.
[40 C.F.R. §63.7525(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.10. If you have an applicable opacity operating limit in this rule, and are not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (1) through (7) of this condition by the compliance date specified in §63.7495.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 at appendix B to part 60 of this chapter.

(2) You must conduct a performance evaluation of each COMS according to the requirements in §63.8(e) and according to Performance Specification 1 at appendix B to part 60 of this chapter.

(3) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

(7) You must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

[40 C.F.R. §§63.7525(c) and (c)(1) through (c)(7); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.11. If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (1) through (5) of this condition by the compliance date specified in §63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in §63.7535(b), and comply with the data calculation requirements specified in §63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in §63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in §63.7535(c).

(5) You must record the results of each inspection, calibration, and validation check.

[40 C.F.R. §§63.7525(d) and (d)(1) through (d)(5); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.12. If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

[40 C.F.R. §63.7525(i); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.13. **Minimum Amount of Monitoring Data for Continuous Compliance with 40 C.F.R. 63 Subpart DDDDD.**

(a) You must monitor and collect data according to §63.7535 and the site-specific monitoring plan required by §63.7505(d) (permit condition 4.2.8.).

(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your semi-annual report.

[40 C.F.R. §§63.7535(a) through (d); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.14. As stated in §63.7540(a)(1), you must show continuous compliance with the emission limitations for each boiler or process heater according to the following:

If you must meet the following operating limits or work practice standards . . .	**You must demonstrate continuous compliance by . . .**
1. Opacity	a. Collecting the opacity monitoring system data according to §63.7525(c) and §63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining daily block average opacity to less than or equal to 10 percent or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation.
6. Dry Scrubber Sorbent Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in §63.7575.
9. Oxygen content	a. Continuously monitor the oxygen content using an oxygen analyzer system according to §63.7525(a). b. Reducing the data to 30-day rolling averages; and c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the CO performance test.
10. Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes. b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test according to §63.7520(c).

[40 C.F.R. §63.7540(a), Table 8, Items 1, 6, 9, and 10; 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.15. Following the date on which the initial compliance demonstration is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of 40 C.F.R. 63 Subpart DDDDD (permit conditions 4.1.16., 4.1.17., 4.1.18., and 4.1.19.) except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.
[40 C.F.R. §63.7540(a)(1); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.2.16. In the event that COMS is out of control as described in condition 4.2.10.(6) when the associated boiler P02, P03, P04, P05, or P06 is operating, the permittee shall perform Method 9 opacity monitoring at least once every thirty (30) minutes until the COMS is returned to operation. The permittee shall maintain records of the monitoring in accordance with condition 4.4.4.
[45CSR§30-5.1.c.] *(P02, P03, P04, P05, and P06)*

4.3. Testing Requirements

4.3.1. The permittee shall periodically conduct or have conducted weight emission tests to determine compliance of each fuel stack with the weight emissions standards set forth in 4.1.2 for emission points 476 and 477. Weight emission tests shall be conducted in accordance with 45CSR2 Appendix "Compliance Test Procedures for 45CSR2" or other equivalent EPA approved method approved by the Director. The results of the baseline compliance tests established the weight emission testing cycle to be used for subsequent testing. Subsequent weight emission tests shall be conducted at a frequency established in the following tables:

Baseline Weight Emission Test Results	Resulting Testing Cycle
≤ 50% of weight emission standard	Cycle 3
Between 50% and 80% of weight emission standard	Cycle 2
≥ 80% of weight emission standard	Cycle 1

Testing Cycle	Test Results	Retesting Cycle
Cycle 1	After three successive tests indicate mass emission rates ≤ 50% of weight emission standard	Cycle 3
	After two successive tests indicate mass emission rates <80% of weight emission standard	Cycle 2
	Any test indicates a mass emission rate ≥ 80% of weight emission standard	Cycle 1
Cycle 2	After two successive tests indicate mass emission rates ≤ 50% of weight emission standard	Cycle 3
	Any test indicates a mass emission rate <80% of weight emission standard	Cycle 2
	Any test indicates a weight emission rate ≥ 80% of weight emission standard	Cycle 1
Cycle 3	Any test indicates a mass emission rate ≤ 50% of weight emission standard	Cycle 3
	Any test indicates a mass emission rate between 50% and 80% of weight emission standard	Cycle 2
	Any test indicates a mass emission rate ≥ 80% of weight emission standard	Cycle 1

Cycle '1' means that testing shall be performed within twelve (12) months from the date of the previous test, but no earlier than six (6) months from the date of the previous test.

Cycle '2' means that testing shall be performed within twenty-four (24) months from the date of the previous test, but no earlier than twelve (12) months from the date of the previous test.

Cycle '3' means that testing shall be performed within thirty-six (36) months from the date of the previous test, but no earlier than eighteen (18) months from the date of the previous test.

The dates for the most recent weight emission tests conducted for emission points 475, 476, and 477 and the resulting testing cycles are as follows:

Emission Point	Emission Unit	Last Test Date	Testing Cycle
475	No. 2 Boiler	2/24/2016 *	Cycle 3
476	No. 3 Boiler	4/13/2016	Cycle 3
	No. 4 Boiler	2/23/2016 *	Cycle 3
477	No. 5 Boiler	4/14/2016	Cycle 3
	No. 6 Boiler	4/15/2016 *	Cycle 3

** Note: Boilers 2, 4, and 6 were tested during the last week of February 2017 for PM and SO_2, but the results were not available at the time of writing the renewal permit.*

The Director reserves the right to require testing pursuant to 4.3.2 and 4.3.4.

[45CSR§2-8.1.a; 45CSR§§2A-5.2.a, 5.3, 2.6.a, 2.6.b, and 2.6.c]

4.3.2. At such other reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of 4.1.2. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director. The Director or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.
[45CSR§§2-8.1.b and 8.1.b.1]

4.3.3. The permittee shall conduct or have conducted, weight emission tests to determine the compliance of emission points 475, 476 and 477 with the weight emission standards set forth in 4.1.5 at a frequency established in the following table. Weight emission tests shall be conducted in accordance with 40 C.F.R. 60, Appendix A, Method 6 or other equivalent EPA testing method approved by the Director.

% of Factor	Testing Frequency
≤ 50% of Factor	No stack testing required
Between 50% and 90% of Factor	Once/5 years
≥ 90% of Factor	Once/year

The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices.

The dates for the most recent weight emission tests conducted for emission points 475, 476, and 477 and resulting testing frequencies are as follows:

Emission Point	Emission Unit	Last Test Date	Testing Frequency
475	No. 2 Boiler	2/24/2016 *	Once/year
476	No. 3 Boiler	4/13/2016	Once/year
	No. 4 Boiler	2/23/2016 *	Once/year
477	No. 5 Boiler	4/14/2016	Once/year
	No. 6 Boiler	4/15/2016 *	Once/year

** Note: Boilers 2, 4, and 6 were tested during the last week of February 2017 for PM and SO_2, but the results were not available at the time of writing the renewal permit.*

[45CSR§10-8.1.a; 45CSR§10A-5.1.a]

4.3.4. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in 4.1.2 or 4.1.5.
[45CSR§2-8.1.c; 45CSR§10-8.1.b]

4.3.5. **CAM Testing Requirements.** Chemours will perform periodic weight emission testing on P02 and P03 on a frequency based upon the initial testing with the subsequent testing frequency as follows; greater than or equal to 80% of the emission standard (as defined within the 45CSR2/45CSR2A Monitoring Plan) will require annual testing; greater than 50% but less than 80% of the emission standard will require testing within 2 years of the previous test; less than or equal to 50% of the emission standard will require testing within 3 years of the previous test. The site will notify and obtain concurrence with WVDAQ regarding the testing frequency and the basis for this interpretation prior to the implementation of a testing schedule. A test protocol document will be provided for WV DAQ review and approval as per the requirements specified in 45CSR2 Appendix.
[40 C.F.R. §64.6(b), 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.3.6. You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit. Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance stack testing, if subject to an applicable emission limit listed in Table 2 to 40 C.F.R. 63 Subpart DDDDD.
[40 C.F.R. §63.7505(c); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.7. You must conduct all applicable performance tests according to 40 C.F.R. §63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of §63.7515 (permit conditions 4.3.8., 4.3.9., and 4.3.11.). Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of §63.7515.
[40 C.F.R. §63.7515(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.8. If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 13 to 40 C.F.R. 63 Subpart DDDDD, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to demonstrate compliance using emission averaging under §63.7522, you must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.
[40 C.F.R. §63.7515(b); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.9. If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Table 2 to 40 C.F.R. 63 Subpart DDDDD) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Table 2 to this subpart).
[40 C.F.R. §63.7515(c); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.10. You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to §63.7530 and Table 7 to 40 C.F.R. 63 Subpart DDDDD (permit condition 4.3.12), as applicable. The reports for all subsequent performance tests must include all applicable information required in §63.7550.
[40 C.F.R. §63.7515(f); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.11. For affected sources (as defined in §63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Table 2 to 40 C.F.R. 63 Subpart DDDDD (permit condition 4.1.11.), no later than 180 days after the re-start of the affected source and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) and the schedule described in §63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up (permit condition 4.1.12.).
[40 C.F.R. §63.7515(g); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.12. **Stack Tests and Procedures for 40 C.F.R. 63 Subpart DDDDD**

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in §63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

Table 7 to Subpart DDDDD of Part 63 – Establishing Operating Limits. As stated in §63.7520(c), you must comply with the following Table 7 requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM	c. Opacity	i. Establish a site-specific maximum opacity level	(1) Data from the opacity monitoring system during the PM performance test	(a) You must collect opacity readings every 15 minutes during the entire period of the performance tests. (b) Determine the average hourly opacity reading for each performance test run by computing the hourly averages using all of the 15-minute readings taken during each performance test run. (c) Determine the highest hourly average opacity reading measured during the test run demonstrating compliance with the PM (or TSM) emission limitation.
2. HCl	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to §63.7530(b). If different acid gas sorbents are used during the HCl performance test, the average value for each sorbent becomes the site-specific operating limit for that sorbent	(1) Data from the sorbent injection rate monitors and HCl or mercury performance test	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average of the three test run averages established during the performance test as your operating limit. When your unit operates at lower loads, multiply your sorbent

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				injection rate by the load fraction, as defined in §63.7575, to determine the required injection rate.
4. Carbon monoxide for which compliance is demonstrated by a performance test	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to §63.7530(b)	(1) Data from the oxygen analyzer system specified in §63.7525(a) (condition 4.2.9.)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
5. Any pollutant for which compliance is demonstrated by a performance test	a. Boiler or process heater operating load	i. Establish a unit specific limit for maximum operating load according to §63.7520(c)	(1) Data from the operating load monitors or from steam generation monitors	(a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test. (b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the highest hourly average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Table 2 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

[40 C.F.R. §63.7520, and Table 7, Items 1.c., 2.b., 4, and 5; 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.13. For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of §63.7521 and Table 6 to 40 C.F.R. 63 Subpart DDDDD, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Table 2 to 40 C.F.R. 63 Subpart DDDDD.
[40 C.F.R. §63.7521(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.14. You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (1) and (2) of this condition, if you are required to conduct fuel analyses as specified in §63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to 40 C.F.R. 63 Subpart DDDDD, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in §63.7510.

(2) You must include the information contained in paragraphs (2)(i) through (vi) of this condition in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of §63.7521. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

[40 C.F.R. §63.7521(b); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.15. You must obtain composite fuel samples for each fuel type according to the procedures in paragraph (1) or (2) of this condition, or the methods listed in Table 6 to 40 C.F.R. 63 Subpart DDDDD, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material. At a minimum, for demonstrating initial compliance by fuel analysis, you must obtain three composite samples. For monthly fuel analyses, at a minimum, you must obtain a single composite sample. For fuel analyses as part of a performance stack test, as specified in §63.7510(a), you must obtain a composite fuel sample during each performance test run.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (1)(i) and (ii) of this condition.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (2)(i) through (iii) of this condition.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

[40 C.F.R. §63.7521(c); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.16. You must prepare each composite sample according to the procedures in paragraphs (1) through (7) of this condition.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (3) of this condition with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

(7) You must use the procedure in paragraph (3) of this condition to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

[40 C.F.R. §63.7521(d); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.17. You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to 40 C.F.R. 63 Subpart DDDDD, for use in Equations 7, 8, and 9 of this subpart.
[40 C.F.R. §63.7521(e); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.18. If you demonstrate compliance through performance stack testing, you must establish each site-specific operating limit in Table 4 to 40 C.F.R. 63 Subpart DDDDD that applies to you according to the requirements in §63.7520, Table 7 to this subpart (permit condition 4.3.12.), and paragraph (b)(4) of §63.7530 (permit condition 4.3.18.), as applicable. You must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of §63.7530, as applicable, and as specified in §63.7510(a)(2). (Note that §63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1) You must establish the maximum chlorine fuel input (Clinput) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of §63.7530.

(2) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of §63.7530.

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSMinput) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of §63.7530.

(4) You must establish parameter operating limits according to paragraphs (b)(4)(v) and (b)(4)(viii) of §63.7530. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(v) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in §63.7575 (permit condition 4.1.17.), as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(viii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

[40 C.F.R. §§63.7530(b), (b)(1) through (b)(3), (b)(4)(v) and (viii); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.19. If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of §63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in §§63.7510(a)(2)(i) through (iii).
[40 C.F.R. §63.7540(a)(4); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.3.20. If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of §63.7530. If the results of recalculating the maximum mercury input using Equation 8 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). You are not required to conduct fuel analyses for the fuels described in §§63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §§63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.
[40 C.F.R. §63.7540(a)(6); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4. Recordkeeping Requirements

4.4.1. The permittee shall retain records of all required monitoring data and support information as established in the monitoring plan (see Appendices A and B) for a period of at least five (5) years from the date of monitoring, sampling, measurement, reporting, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§2-8.3.a; 45CSR§2A-7.1.b; 45CSR§10-8.3.a; 45CSR§10A-7.1.d; 45CSR§30-5.1.c.2.B]

4.4.2. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request. Where appropriate the owner or operator may maintain such records in an electronic format.

a. For coal, records of the date and time of start-up and shutdown, the quantity of fuel consumed on a daily basis and a periodic fuel quality analysis conducted as follows:

Ash	Per Shipment
BTU	Daily
Sulfur Content	Daily

[45CSR§§2-8.3.c and 8.3.d; 45CSR§2A-7.1.a.4; 45CSR§§10-8.3.c and 8.3.d; 45CSR§10A-7.1.a]

4.4.3. The permittee shall provide in the monitoring plan a quality control and quality assurance program for the fuel analysis. If a certified independent lab is used to provide the fuel analysis, the quality control assurance program is deemed to be satisfactory.
[45CSR§10A-7.1.a.1]

4.4.4. Records of each visible emission observation and each Method 9 evaluation conducted in accordance with 4.2.16 shall be maintained for a period of at least five (5) years in accordance with 3.4.2. The visible emission observation records shall include, but not be limited to, the date, time, name of the emission unit, the applicable visible emissions requirements, the results of the observations, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c.]

4.4.5. The permittee shall monitor all fugitive particulate emission sources as required by 4.1.3 to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained for a period of at least five (5) years in accordance with 3.4.2 and shall state the types of fugitive particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.
[45CSR§30-5.1.c.]

4.4.6. Records of the visible emission observations required in 4.2.3 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken.
[45CSR§30-5.1.c.] *(Sorbent Silos; Emission Point I.D. 493)*

4.4.7. **CAM Recordkeeping Requirements.** The permittee shall maintain the following records for each baghouse on Equipment IDs P02 and P03:

a. Daily records of the differential pressure drop observations conducted in accordance with Condition 4.2.4.

b. Records of the annual inspections conducted on the differential pressure transmitters (including pressure gauge and reader) conducted in accordance with Condition 4.2.4. Records shall note any maintenance performed on these devices.

c. For each excursion as specified in Condition 4.2.4., records of the date of the occurrence and all corrective actions taken.

d. Records of inspection and maintenance performed on each baghouse, including the frequency of bag/filter change outs. Records shall state the date and time, the results of the inspection, and maintenance or corrective actions taken, if any.

All records shall be maintained on site as per Condition 3.4.2.

[40 C.F.R. §64.9(b)(1); 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.4.8. As specified in §63.7555(d)(1), on a monthly basis you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in the following:

(ii) Equal to or lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

[40 C.F.R. §§63.7540(a)(2), (a)(2)(ii), and 63.7555(d)(1); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.9. You must keep records according to paragraphs (1) and (2) of this condition.

(1) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).

[40 C.F.R. §63.7555(a); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.10. For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (1) through (5) of this condition.

(1) Records described in §63.10(b)(2)(vii) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

[40 C.F.R. §63.7555(b); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.11. You must keep the records required in Table 8 to 40 C.F.R. 63 Subpart DDDDD (permit condition 4.2.14.) including records of all monitoring data and calculated averages for applicable operating limits, such as opacity and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.
[40 C.F.R. §63.7555(c); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.12. You must keep a copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 16 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.
[40 C.F.R. §63.7555(d)(3); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.13. You must keep a copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 17 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.
[40 C.F.R. §63.7555(d)(4); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.14. If, consistent with §63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 13 to this subpart, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.
[40 C.F.R. §63.7555(d)(5); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.15. You must keep records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.
[40 C.F.R. §63.7555(d)(6); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.16. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3) (permit condition 4.1.20.), including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.
[40 C.F.R. §63.7555(d)(7); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.17. You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.
[40 C.F.R. §63.7555(d)(9); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.18. You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown. **[40 C.F.R. §63.7555(d)(10); 45CSR34]** *(P02, P03, P04, P05, and P06)*

4.4.19. For each startup period, for units selecting paragraph (2) of the definition of "startup" in §63.7575 you must maintain records of the time that clean fuel combustion begins; the time when you start feeding fuels that are not clean fuels; the time when useful thermal energy is first supplied; and the time when the PM controls are engaged.
[40 C.F.R. §63.7555(d)(11); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.20. If you choose to rely on paragraph (2) of the definition of "startup" in §63.7575, for each startup period, you must maintain records of the hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly average CMS data (*e.g.*, CEMS, PM CPMS, COMS, ESP total secondary electric power input, scrubber pressure drop, scrubber liquid flow rate) collected during each startup period to confirm that the control devices are engaged. In addition, if compliance with the PM emission limit is demonstrated using a PM control device, you must maintain records as specified in paragraph (ii) of this condition.

(ii) For a boiler or process heater with a fabric filter, record the number of compartments in service, as well as the differential pressure across the baghouse during each hour of startup.

[40 C.F.R. §63.7555(d)(12); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.4.21. **Format and Retention of Records for 40 C.F.R. 63 Subpart DDDDD.**

(a) Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).

(b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 C.F.R. §§63.7560(a), (b), and (c); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.5. Reporting Requirements

4.5.1. The permittee shall submit a periodic exception report to the Director, in a manner and at a frequency as set forth in the approved monitoring plan (See Appendices A and B). To the extent that an excursion of particulate matter emissions is due to a malfunction, the reporting requirements in 4.5.2 shall be followed. **[45CSR§2-8.3.b; 45CSR§§2-7.2.c and 7.2.d; 45CSR§10-8.3.b; 45CSR§10A-7.2.b]**

4.5.2. The owner or operator of a fuel burning unit(s) subject to 45CSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity as provided in one of the following:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and

2. Excess opacity does not exceed 40%.

b. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in subdivision 4.5.2.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware or such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:

1. A detailed explanation of the factors involved or causes of the malfunction:

2. The date and time of duration (with starting and ending times) of the period of excess emissions;

3. An estimate of the mass of excess emissions discharged during the malfunction period;

4. The maximum opacity measured or observed during the malfunction;

5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and

6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9.3]

4.5.3. **General Reporting Requirements for 40 C.F.R. Part 64 (CAM).**

a. On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. 64, the permittee shall submit monitoring reports to the DAQ in accordance with permit condition 3.5.6.

b. A report for monitoring under 40 C.F.R. 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable)

iii. A description of the actions taken to implement QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c] *(Em. Unit ID: P02, P03)*

4.5.4. You must submit to the Administrator all of the notifications in §§63.7(b), 63.7(c), 63.8(e), 63.9(e), 63.9(f), and 63.9(g) that apply to you by the dates specified.
[40 C.F.R. §§ 63.7545(a) and 63.7495(d); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.5.5. If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.
[40 C.F.R. §§ 63.7545(d), 63.9(e), and 63.7495(d); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.5.6. **Compliance Report.** For the coal-fired boilers P02, P03, P04, P05, and P06, you must submit a 40 C.F.R. 63 Subpart DDDDD Compliance report containing the information in a. through d. of this condition:

a. The information in §63.7550(c)(1), (3), and (5), which is:

(1) If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in paragraphs (5)(i) through (iii) of this condition, (xiv) and (xvii) of this condition.

(2) Reserved.

(3) If you are complying with the applicable emissions limit with performance testing you must submit a compliance report with the information in (5)(i) through (iii), (vi), (vii), (viii), (ix), (xi), (xiii), (xv), (xvii), (xviii) of this condition and paragraph (d) of §63.7550 (permit condition 4.5.6.c.(1) through (3)).

(4) Reserved.

(5) (i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) Reserved.

(v) Reserved.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with §63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 16 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 17 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 18 of §63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of §63.7530 or the maximum mercury input operating limit using Equation 8 of §63.7530, or the maximum TSM input operating limit using Equation 9 of §63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(x) Reserved.

(xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(xii) Reserved.

(xiii) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with §63.7500(a)(3), including actions taken to correct the malfunction.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(xv) If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in §63.7545(e)(5)(i).

(xvi) Reserved.

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(xviii) For each instance of startup or shutdown include the information required to be monitored, collected, or recorded according to the requirements of §63.7555(d).

b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards for periods of startup and shutdown in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and

c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in §63.7550(d);

(1) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.

d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), or otherwise not operating, the report must contain the information in §63.7550(e).

For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs d. (1) through (9) of this condition. This includes any deviations from your site-specific monitoring plan as required in §63.7505(d).

(1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) A brief description of the source for which there was a deviation.

(9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

You must submit the report semi-annually according to the requirements in 40 C.F.R. §63.7550(b), which are:

(1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.

(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in §63.7495.

(3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) You may submit the first and subsequent compliance reports according to the dates established in permit condition 3.5.6. instead of according to the dates in paragraphs (1) through (4) of this condition.

You must submit the reports according to the procedures specified in paragraphs (h)(1) and (3) of this §63.7550, which are:

(1) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any fuel analyses, following the procedure specified in either paragraph (h)(1)(i) or (ii) of §63.7550.

(3) You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

[40 C.F.R. §§63.7550(a), Table 9, Items 1.a., 1.b., 1.c., and 1.d.; 40 C.F.R. §§63.7550(b), (c)(1), (c)(3), (c)(5), (d), and (e); 40 C.F.R. §§63.7550(h)(1) and (3); 40 C.F.R. §63.7540(b); 45CSR34] *(P02, P03, P04, P05, and P06)*

4.6. Compliance Plan

4.6.1. Reserved.

5.0 No. 8 Boiler Requirements [emission point ID: 479]

5.1. Limitations and Standards

5.1.1. The following table provides information on the boiler authorized to operate by this permit at the Chemours Washington Works facility. In accordance with the information filed in Permit Application R14-14, and any amendments or revisions thereto, the boiler shall not exceed the specified Maximum Design Heat Input (MDHI), shall combust only the specified fuel, and shall utilize the specified control devices.

ID No.	Manufacturer	Model No.	MDHI (MMBtu/Hr)	Fuel	Control Device(s)
No. 8	Babcock & Wilcox	FM-120-97	181.00	Natural Gas	Coen Low-NO_x Burners and Flue Gas Recirculation

[45CSR14, R14-14, A.1]

5.1.2. In accordance with the information filed in Permit Application R14-14, and any amendments or revisions thereto, the boiler identified under 5.1.1 above shall be monitored and operated according to the following conditions:

a. Coen Low-NO_x burners shall be installed, maintained, and operated so as to reduce the formation of NO_x from the combustion of natural gas.

b. A flue gas recirculation rate shall be utilized that is consistent with good engineering practices, manufacturer's recommendations, and data developed during the required stack test so as to guarantee the optimum reduction in the formation of NO_x. The permittee shall, at all times the boiler number 8 is in operation, utilize flue gas recirculation.

c. Combustion Controls, which includes, but is not limited to, the use of low-excess air shall be used to reduce the formation of NO_x from the combustion of natural gas.

d. The permittee shall develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance performed on boiler number 8 and its associated control technologies. These records need not include maintenance tasks that have no potential effect on emissions performance.

[45CSR14, R14-14, A.2]

5.1.3. The emission of Nitrogen Oxides (NO_x) into the atmosphere from the operation from No. 8 Boiler shall not exceed 0.10 pounds/MMBtu of heat input. Compliance with this emission limit shall be determined on a 30-day rolling average basis. The 30-day rolling average shall be calculated each day as the average of all hourly emissions data recorded by the monitoring system for the preceding 30 steam generating unit operating days.

For the purposes of this permit, "steam generating unit operating days" shall have the meaning given to it in 40 C.F.R. 60, Subpart Db.

This nitrogen oxide standard shall apply at all times including periods of startup, shutdown, or malfunction.

[45CSR14, R14-14, A.3 and B.6; 45CSR16; 40 C.F.R. §§60.44b(a)(1)(i), 60.44b(a)(1), 60.44b(h), and 60.44b(i); 40 C.F.R. §60.46b(a)]

5.1.4. Emission rates from the operation of No. 8 Boiler shall not exceed the following limits:

Pollutant	pounds/hr(1)	tons/year(2)
Carbon Monoxide (CO)	15.20	66.59
Oxides of Nitrogen (NO_x)	18.10	79.28
Total Suspended Particulate (TSP)	1.38	6.03
Particulate Matter less than 10 microns (PM_{10})	1.38	6.03
Sulfur Dioxide (SO_2)	0.11	0.48
Volatile Organic Compounds (VOCs)	1.00	4.36

(1) All pound/hour limits are instantaneous limits with the exception of NO_x, which is a 30-day rolling average limit as defined under 5.1.3.
(2) The annual limits represent a twelve (12) month rolling total limits.

Compliance with the above hourly emission limits for TSP and PM_{10} shall demonstrate compliance with the less stringent hourly particulate emission limit from 45CSR§2-4.1.b. Compliance with the above hourly emission limit for SO_2 shall demonstrate compliance with the less stringent hourly sulfur dioxide emission limits from 45CSR§10-3.1.e.

[45CSR14, R14-14, A.4, B.2, and B.4; 45CSR§2-4.1.b; 45CSR§10-3.1.e]

5.1.5. The combustion of natural gas in boiler number 8 shall not exceed 1,585,560,000 cubic feet on an annual basis. The annual boiler fuel usage shall be calculated using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the natural gas consumed for the previous twelve (12) consecutive months.
[45CSR14, R14-14, A.5]

5.1.6. Pursuant to 45CSR§2-3.1, the permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from No. 8 Boiler which is greater than ten (10) percent opacity based on a six minute block average. Pursuant to 45CSR§2-9.1, the visible emission standards set forth in 5.1.6 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR14, R14-14, A.6 and B.2; 45CSR§§2-3.1 and 9.1]

5.1.7. The pertinent sections of 45CSR14 applicable to this facility include, but are not limited to, the following:

a. Any person proposing to construct, or relocate a major stationary source or major modification shall meet each applicable emissions limitation promulgated by the Director and any applicable standard or standard of performance under 40 C.F.R. 60, 61, and 63. **[45CSR§14-8.1]**

b. Any person proposing a major modification of a stationary source shall apply best available control technology for each regulated pollutant for which such proposed major modification would cause a significant net emissions increase from such source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit. **[45CSR§14-8.3]**

c. A permittee may petition the Director for a transfer of a permit previously issued in accordance with this rule. The Director shall approve such permit transfer provided the following conditions are met: **[45CSR§14-19.1]**

(1) The permittee, in the petition, describes the reasons for the requested permit transfer and certifies that the subject source is in compliance with all provisions and requirements of its permit, and **[45CSR§14-19.1(a)]**

(2) The transferee acknowledges, in writing, that it accepts and will comply with all the requirements, terms, and conditions as contained in the subject permit. **[45CSR§14-19.1(b)]**

d. The Director may suspend, modify, or revoke the permit if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. **[45CSR§14-19.3]**

[45CSR14, R14-14, B.5; 45CSR§§14-8.1, 8.3, 19.1, and 19.3]

5.1.8. In the event of an unavoidable shortage of fuel having characteristics or specifications necessary for a fuel burning unit to comply with the visible emission standards set forth in 5.1.6 or any emergency situation or condition creating a threat to public safety or welfare, the Director may grant an exception to the otherwise applicable visible emission standards for a period not to exceed fifteen (15) days, provided that visible emissions during the exception period do not exceed a maximum six (6) minute average of thirty (30) percent and that a reasonable demonstration is made by the owner or operator that the particulate emissions standards under 45CSR§2-4.1.b will not be exceeded during the exemption period.
[45CSR§2-10.1]

5.1.9. Due to unavoidable malfunction of equipment or inadvertent fuel shortages, SO_2 emissions exceeding those provided for in 45CSR§10-3.1.e may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR§10-9.1]

5.1.10. **5-year Tune-ups for Boiler P31.** If your unit is a new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, you must conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540(a)(12) and (a)(10)(i) through (vi) (refer to permit condition 4.1.12.(i) through (vi)).

- Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up.

- If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[40 C.F.R. §63.7500(a)(1), Table 3, Item 1; 40 C.F.R. §§63.7540(a)(12), and (a)(10)(i)-(vi); 40 C.F.R. §§63.7505(a), 63.7515(d), 63.7515(g), and 63.7540(a)(13); 45CSR34]

5.1.11. **One-time Energy Assessment**. If your unit is an existing boiler or process heater located at a major source facility, you must have a one-time energy assessment performed in accordance with the terms and specifications in permit condition 4.1.13.
[40 C.F.R. §63.7500(a)(1), Table 3, Item 4; 40 C.F.R. §63.7505(a); 45CSR34]

5.1.12. At all times, you must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 C.F.R. §63.7500(a)(3); 45CSR34]

5.2. Monitoring Requirements

5.2.1. To determine compliance with the NO_x emission limits under 5.1.3 and 5.1.4, the permittee shall install and utilize a NO_x continuous emissions monitoring system (CEMS). The NO_x CEMS shall be installed, operated, and monitored in accordance with the applicable requirements under 40 C.F.R. 60, Subpart Db.
[45CSR14, R14-14, A.7]

5.2.2. The pertinent monitoring requirements from 40 C.F.R. 60, Subpart Db are as follows:

a. The owner or operator of an affected facility shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system.
[45CSR16; 40 C.F.R. §60.48b(b)(1)]

b. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
[45CSR16; 40 C.F.R. §60.48b(c)]

c. The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by 40 C.F.R. §60.48b(b) and required under 40 C.F.R. §60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under 40 C.F.R. §60.44b and 5.1.3. The 1-hour averages shall be calculated using the data points required under 40 C.F.R. §60.13(h)(2).
[45CSR16; 40 C.F.R. §60.48b(d)]

d. The procedures under 40 C.F.R. §60.13 shall be followed for installation, evaluation and operation of the continuous monitoring systems.
[45CSR16; 40 C.F.R. §60.48b(e)]

(1) For affected facilities combusting natural gas, the span value for nitrogen oxides is 500 ppm.
[45CSR16; 40 C.F.R. §60.48b(e)(2)(i)]

e. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7a of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.
[45CSR16; 40 C.F.R. §60.48b(f)]

f. The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:
[45CSR16; 40 C.F.R. §60.48b(g)]

(1) Comply with the provisions of 40 C.F.R. §§60.48b(b), (c), (d), (e)(2), (e)(3), and (f).
[45CSR16; 40 C.F.R. §60.48b(g)(1)]

(2) Monitor steam generating unit operating conditions and predict NO_x emission rates as specified in a plan submitted pursuant to 40 C.F.R. §60.49b(c).
[45CSR16; 40 C.F.R. §60.48b(g)(2)]

[45CSR14, R14-14, B.6; 45CSR16; 40 C.F.R. §§60.48b(b)(1), 60.48b(c), 60.48b(d), 60.48b(e), 60.48b(e)(2)(i), 60.48b(f), 60.48b(g), 60.48b(g)(1), and 60.48b(g)(2)]

5.2.3. For the purpose of determining compliance with the opacity limit of 5.1.6 for the No. 8 Boiler, the permittee shall conduct opacity monitoring and recordkeeping. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (but no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 40 C.F.R. 60, AppendixA, Method 9 within twenty-four (24) hours of the first signs of visible emissions. A Method 9 evaluation shall not be required if the visible emission condition is corrected within twenty-four (24) hours after the visible emission and the sources are operating at normal conditions.
[45CSR§2-3.2 and 45CSR§30-5.1.c.]

5.3. Testing Requirements

5.3.1. At such reasonable time(s) as the Director may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations as set forth in 5.1.4 above. Test(s) shall be conducted in accordance with 5.3.2 and 5.3.3 contained herein. The Director, or his duly authorized representative, may, at his option, witness or conduct such test. Should the Director exercise his option to conduct such test(s), the operator shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. **[45CSR14, R14-14, A.8]**

5.3.2. Tests that may be required by the Director to determine compliance with the emission limitations set forth in 5.1.4 of this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at 100% of the peak load unless otherwise specified or approved by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with the 45CSR2 Appendix (which references therein Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 C.F.R. 60, Appendix A).

b. Tests to determine compliance with SO_2 emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 C.F.R. 60, Appendix A.

c. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 C.F.R. 60, Appendix A.

d. Tests to determine compliance with NO_x emission limits shall conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 C.F.R. 60, Appendix A.

e. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25 or 25A as set forth in 40 C.F.R. 60, Appendix A.

[45CSR14, R14-14, B.7]

5.3.3. With regard to any testing required by the Director, the permittee shall submit to the Director of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. **[45CSR14, R14-14, B.8]**

5.4. Recordkeeping Requirements

5.4.1. For the purposes of determining compliance with the maximum throughput limit set forth in 5.1.5, the applicant shall maintain a certified monthly record of the quantity of natural gas consumed by Boiler Number 8. An example form for recording this information is included as Appendix C, Attachment A. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR14, R14-14, B.9]

5.4.2. For the purposes of determining compliance with the maximum NO_x emission limit under 5.1.3, the applicant shall maintain and submit records pursuant to 40 C.F.R. §60.49b, which includes the generation of a new 30-day average NO_x emission rate calculated at the end of each steam generating unit operating day from the measured NO_x emission rates for the preceding 30 steam generating days. In addition to the required quarterly reports, the records required to be kept by Subpart Db shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his duly authorized representative upon request.
[45CSR14, R14-14, B.10]

5.4.3. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit. For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis. Records of all required monitoring data and support information shall be maintained on-site for a period of at least five years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports.
[45CSR14, R14-14, B.3; 45CSR§§2A-7.1.a, 7.1.a.1, and 7.1.b; 45CSR§§2-8.3.c and 8.3.d]

5.4.4. The pertinent recordkeeping requirements from 40 C.F.R. 60, Subpart Db are as follows:

a. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
[45CSR16; 40 C.F.R. §60.49b(d)(1)]

b. The owner or operator of an affected facility subject to the NO_x standards under 40 C.F.R. §60.44b shall maintain records of the following information for each steam generating unit operating day:
[45CSR16; 40 C.F.R. §60.49b(g)]

(1) Calendar date. **[45CSR16; 40 C.F.R. §60.49b(g)(1)]**

(2) The average hourly NO_x emission rates (expressed as NO_2) (ng/J or lb/million Btu heat input) measured or predicted. **[45CSR16; 40 C.F.R. §60.49b(g)(2)]**

(3) The 30-day average NO_x emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days. **[45CSR16; 40 C.F.R. §60.49b(g)(3)]**

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emission standards under 40 C.F.R. §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken. **[45CSR16; 40 C.F.R. §60.49b(g)(4)]**

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken. **[45CSR16; 40 C.F.R. §60.49b(g)(5)]**

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data. **[45CSR16; 40 C.F.R. §60.49b(g)(6)]**

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. **[45CSR16; 40 C.F.R. §60.49b(g)(7)]**

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS. **[45CSR16; 40 C.F.R. §60.49b(g)(8)]**

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3. **[45CSR16; 40 C.F.R. §60.49b(g)(9)]**

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part. **[45CSR16; 40 C.F.R. §60.49b(g)(10)]**

[45CSR14, R14-14, B.6; 45CSR16; 40 C.F.R. §§60.49b(d), 60.49b(g), 60.49b(g)(1), 60.49b(g)(2), 60.49b(g)(3), 60.49b(g)(4), 60.49b(g)(5), 60.49b(g)(6), 60.49b(g)(7), 60.49b(g)(8), 60.49b(g)(9), and 60.49b(g)(10)]

5.4.5. Records of each visible emission observation and each Method 9 evaluation conducted in accordance with 5.2.3 shall be maintained for a period of at least five (5) years in accordance with 3.4.2. The visible emission observation records shall include, but not be limited to, the date, time, name of the emission unit, the applicable visible emissions requirements, the results of the observations, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c.]

5.4.6. You must keep records according to paragraphs (1) and (2) of this condition.

(1) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual* compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

** Note – Compliance reports are required every five (5) years pursuant to 40 C.F.R. §63.7550(b) in permit condition 5.5.3.*

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).

[40 C.F.R. §63.7555(a); 45CSR34]

5.4.7. **Format and Retention of Records for 40 C.F.R. 63 Subpart DDDDD.**

(a) Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).

(b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 C.F.R. §§63.7560(a), (b), and (c); 45CSR34]

5.5. Reporting Requirements

5.5.1. All notifications and reports required pursuant to 40 C.F.R. §60.7 shall be forwarded to:

Director WVDEP Division of Air Quality 601 57th Street, SE Charleston, WV 25304	And	Director, Air Protection Division US Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103

[45CSR14, R14-14, B.11]

5.5.2. The owner or operator is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. For the purposes of 40 C.F.R. §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under 40 C.F.R. §60.46b(e), which exceeds the applicable emission limits in 40 C.F.R. §60.44b.
[45CSR14, R14-14, B.6; 45CSR16; 40 C.F.R. §§60.49b(h), 60.49b(h)(2), and 60.49b(h)(4)

5.5.3. **Compliance Report.** For the natural gas-fired boiler P31, you must submit a 40 C.F.R. 63 Subpart DDDDD Compliance report containing the information in a. and b. of this condition:

a. The information in §§63.7550(c)(1) and (5)(i) through (iii), (xiv), and (xvii) which are:

(i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

(iii) Date of report and beginning and ending dates of the reporting period.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to §63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

b. If there are no deviations from the requirements for work practice standards in Table 3 to 40 C.F.R. 63 Subpart DDDDD that apply to you (condition 5.1.10.), a statement that there were no deviations from the work practice standards during the reporting period.

You must submit the 5-year compliance report according to the requirements in 40 C.F.R. §63.7550(b), which are:

(1) If submitting a 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on December 31 within 5 years after the compliance date that is specified for your source in §63.7495.

(2) The first 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Subsequent 5-year compliance reports must cover the 5-year periods from January 1 to December 31.

(4) Subsequent 5-year compliance reports must be postmarked or submitted no later than January 31.

(5) You may submit the first and subsequent compliance reports according to the dates established in permit condition 3.5.6. instead of according to the dates in paragraphs (1) through (4) of this condition.

You must submit all reports required by Table 9 of 40 C.F.R. 63 Subpart DDDDD electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

[40 C.F.R. §§63.7550(a), Table 9, Items # 1.a. and # 1.b.; 40 C.F.R. §§63.7550(b), (c)(1), (c)(5)(i) through (iii), (xiv), and (xvii); 40 C.F.R. §63.7550(h)(3); 40 C.F.R. §63.7540(b); 45CSR34]

5.6. Compliance Plan

5.6.1. Reserved.

6.0 45CSR7 Requirements

6.1. Limitations and Standards

6.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§§7-3.1 and 3.2] *(474 and 480)*

6.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in the table below.

Emission Point	Emission Source	Limit
474	P835 Sulfuric Acid Tank	35 mg/m^3
	P836 Sulfuric Acid Tank	35 mg/m^3

[45CSR§7-4.2 and Table 45-7B]

6.1.3. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1]

6.1.4. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
[45CSR§7-5.2]

6.2. Monitoring Requirements

6.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§7-3.1 and 3.2, the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment in service that are subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (but no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within twenty-four (24) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within twenty-four (24) hours after the visible emission and the sources are operating at normal conditions.
[45CSR§30-5.1.c.]

6.3. Testing Requirements

6.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in the exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1]

6.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2]

6.4. Recordkeeping Requirements

6.4.1. Records of the visible emission observations required by 6.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. These records shall be maintained for a period of at least five (5) years in accordance with 3.4.2.
[45CSR§30-5.1.c.]

6.4.2. The permittee shall maintain monthly records of tank throughput and emissions (mg/m^3) for the Sulfuric Acid Tanks (P835 and P836). These records shall be maintained for a period of at least five (5) years in accordance with 3.4.2.
[45CSR§30-5.1.c.]

6.4.3. The permittee shall monitor all fugitive particulate emission sources as required by 6.1.3 to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained for a period of at least five (5) years in accordance with 3.4.2 and shall state the types of fugitive particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.
[45CSR§30-5.1.c.]

6.4.4. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by 6.1.4 applied at the facility. These records shall be maintained for a period of at least five (5) years in accordance with 3.4.2.
[45CSR§30-5.1.c.]

6.5. Reporting Requirements

6.5.1. Reserved.

6.6. Compliance Plan

6.6.1. Reserved.

7.0 B12 Parts Washer (P302) and Boiler Overhaul Parts Washer (P304) Requirements

7.1. Limitations and Standards

7.1.1. The owner or operator of a cold cleaning facility shall:

a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.

b. Store waste solvent in covered containers.

c. Close the cover whenever parts are not being handled in the cleaner.

d. Drain the cleaned parts until dripping ceases.

e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge (psig).

f. Degrease only materials that are neither porous nor absorbent.

[45CSR§§21-30.3.a.4, 30.3.a.5, 30.3.a.6, 30.3.a.7, 30.3.a.8, 30.3.a.9, State-Enforceable only]

7.2. Monitoring Requirements

7.2.1. Reserved.

7.3. Testing Requirements

7.3.1. Test Method ASTM D323-72 shall be used for measuring the solvent true vapor pressure. **[45CSR§21-30.4.e., State-Enforceable only]**

7.4. Recordkeeping Requirements

7.4.1. Each owner or operator of a solvent metal cleaning source subject to this 45CSR§21-30 shall maintain the following records in a readily accessible location for at least 5 years and shall make these records available to the Director upon verbal or written request:

a. A record of central equipment maintenance, such as replacement of the carbon in a carbon adsorption unit.

b. The results of all tests conducted in accordance with the requirements in section 45CSR§21-30.4 (7.3.1.).

[45CSR§21-30.5. and 45CSR§30-5.1.c., State-Enforceable only]

7.5. Reporting Requirements

7.5.1. Except as provided in section 45CSR§21-9.3, the owner or operator of any facility containing sources subject to 45CSR§21-5 shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information.

(1) The name and location of the facility;

(2) The subject sources that caused the excess emissions;

(3) The time and date of first observation of the excess emissions; and

(4) The cause and expected duration of the excess emissions.

(5) For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

(6) The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

[45CSR§21-5.2]

7.6. Compliance Plan

7.6.1. Reserved.

8.0 Wastewater Treatment Plant

8.1. Limitations and Standards

8.1.1. The maximum averaged flow rate at the inlet of the Wastewater Treatment Plant shall not exceed 2,000 gallons per minute, based on a 1-hour average.
[45CSR13, R13-2654, 5.1.1.]

8.1.2. Emissions released from the Wastewater Treatment Plant shall be limited to the pollutants and associated total combined emission rates as set forth in Table 8.1.2. of this permit.

Table 8.1.2.

Emission Point	Sources	Pollutant	Emission Rates	
			Hourly (pph)	Annual (tpy)
480	P201, P202, P205, P206, P207, P208, P209, P210, P211, P212, P214, P215, P218	VOC	162.97	625.58
		Formaldehyde	7.05	24.77
		Total HAPs	23.14	82.84

[45CSR13, R13-2654, 5.1.2.]

8.1.3. The emissions of Total HAPs identified in Table 8.1.2. of this permit, may consist of any one, or combination of those pollutants listed in Table 8.1.3.

Table 8.1.3.

Chemical	CAS Number
Acrylic Acid	79107
Toluene	108883
Ethyl Acrylate	140885
Formaldehyde[1]	50000
Methanol	67561
Methyl Methacrylate	80626
n-Hexane	110543

1 – Toxic air pollutants shall not exceed the specific emission limits set forth in Table 8.1.2. of this permit.

[45CSR13, R13-2654, 5.1.3.]

8.1.4. Emission sources and the associated emission points affected by Section 8.0 of this permit and subject to 45CSR21, shall be subject to the standards and requirements set forth in permit R13-3223, and any amendments thereto.
[45CSR13, R13-2654, 5.1.4.]

8.1.5. Emission sources and the associated emission points affected by Section 8.0 of this permit and subject to 45CSR27, shall be subject to the standards and requirements set forth in permit R13-3223, and any amendments thereto.
[45CSR13, R13-2654, 5.1.5.]

8.2. Monitoring Requirements

8.2.1. For the purpose of determining compliance with the flow rate limits set forth in Section 8.1.1. of this permit, the total flow rate (in gallons per minute) shall be monitored at the inlet to the Wastewater Treatment Plant.
[45CSR13, R13-2654, 5.2.1.]

8.2.2. For the purpose of determining compliance with the emission limits set forth in Table 8.1.2. of this permit, and Section 8.1.3. of this permit, the permittee shall conduct daily 24-hour composite sampling for the liquid feed to the Wastewater Treatment Plant. This sample shall be taken by an automated sampler system. In the event of failure of the composite sampling system, a substitute composite sample may be developed by taking four (4) equal volume samples over a period of not less than 12-hours to supply sufficient volume for the required analysis.
[45CSR13, R13-2654, 5.2.2.]

8.3. Testing Requirements

8.3.1. For the purpose of determining compliance with the concentration limits set forth in Section 8.1.4. of this permit, the permittee shall perform a daily on-site analysis of the composite sample required in Section 8.2.2. of this permit for formaldehyde concentration. The analysis shall be performed using a HACH DR 4000U Spectrophotometer analyzer or equivalent. In the event no on-site method of analysis is available, the permittee may utilize an outside laboratory for conducting such daily analyses.
[45CSR13, R13-2654, 5.3.1.]

8.3.2. Once per week, a 24-hour composite sample, described in Section 8.2.2. of this permit, will be sent to an outside laboratory to analyze the methanol concentration.
[45CSR13, R13-2654, 5.3.2.]

8.4. Recordkeeping Requirements

8.4.1. For the purpose of demonstrating compliance with the monitoring requirements set forth in Section 8.2.1. of this permit, the permittee shall maintain records of the maximum flow rates recorded into the inlet of the Wastewater Treatment Plant. Such flow rates shall be based on a 1-hour rolling average.
[45CSR13, R13-2654, 5.4.4.]

8.4.2. For the purpose of demonstrating compliance with the emission limits set forth in Section 8.1.2. and 8.1.3. of this permit, records of the analytical testing described in Section 8.2.2. of this permit shall be maintained.

a. The results of the analytical testing will be combined to produce a daily 30-day rolling average concentration for each tested species, including formaldehyde and methanol. The daily 30-day rolling average concentration will be used to calculate emissions from the sources identified in Table 8.4.2. of this permit.

Table 8.4.2.

Source ID	Description	Source ID	Description
P201	Equalization Tank	P208	Aeration Tank
P202	Diversion Tank	P209	Deaeration Tank
P205	Mix Tank	P210	Clarifier Tank
P206	Aeration Tank	P211	Clarifier Tank
P207	Aeration Tank	P212	Clarifier Tank

b. Daily calculations will be performed by comparing the concentration ratio for the speciated material against the baseline case for the emissions calculated in WATER9. The daily rolling 30-day average-based emissions will be compared to a WATER9 calculation for emissions once per quarter for verification of the daily calculation. Daily emission calculations will be performed no more than 30 days from the date in which the sample was taken.

c. Missing data will be accounted for by using an average of the analytical data from the days on either side of the missing data. Missing data will not constitute a deviation as long as there are no more than three (3) days missing per 30-day period and the missing data is not consecutive readings.

[45CSR13, R13-2654, 5.4.5.]

8.4.3. For the purpose of calculating annual methanol emissions, records shall be maintained of the methanol concentrations obtained during off-site laboratory analysis. Missing methanol data will not constitute a deviation as long as there is no more than 1 weekly sample missing per 30-day period.
[45CSR13, R13-2654, 5.4.6.]

8.5. Reporting Requirements

8.5.1. Reserved.

8.6. Compliance Plan

8.6.1. Reserved.

9.0 Emergency Engines [emission point ID(s): P120, P121, P122, P123]

9.1. Limitations and Standards

9.1.1. For the engines (P121, P122, P123) and the generator (P120), the permittee shall comply with the requirements of 40 C.F.R. 63, Subpart ZZZZ – "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."

a. The permittee shall meet the following operating requirements:

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

For each...	You must meet the following requirement, except during periods of startup...	During periods of startup you must...
1. Emergency stationary CI RICE and black start stationary CI RICE.[1] (P121, P122, P123)	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
6. Emergency stationary SI RICE and black start stationary SI RICE.[1] (P120)	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §§63.6625(i) and (j) (permit conditions 9.3.1. and 9.3.2. for CI and SI engines, respectively) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

b. The permittee shall be in compliance with the general requirements of 40 C.F.R. §63.6605.

c. The permittee shall meet the applicable general provisions specified in Table 8 of 40 C.F.R. 63, Subpart ZZZZ with the exception of §§63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b)-(e), (g) and (h) which do not apply per 40 C.F.R. §63.6645(a)(5).

d. The permittee shall demonstrate continuous compliance with the limits specified in 9.1.1. according to the methods specified in Table 6 of 40 C.F.R. 63, Subpart ZZZZ.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance with Emission Limitations and Other Requirements

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 C.F.R. §§ 63.6602, 63.6605, 63.6625(h), 63.6640(a), 63.6645(a)(5), 63.6665, Table 2c Items 1 and 6, and Table 6, Item 9; 45CSR34]

9.1.2. If you own or operate an existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
[40 C.F.R. §§63.6625(e) and (e)(2); 45CSR34]

9.1.3. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
[40 C.F.R. §63.6625(f); 45CSR34]

9.2. Monitoring Requirements

9.2.1. Reserved.

9.3. Testing Requirements

9.3.1. If you own or operate a stationary CI engine that is subject to the work, operation or management practices in item 1 of Table 2c to this subpart (permit condition 9.1.1.a.1.), you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
[40 C.F.R. §63.6625(i); 45CSR34] *(P121, P122, and P123)*

9.3.2. If you own or operate a stationary SI engine that is subject to the work, operation or management practices in item 6 of Table 2c to this subpart (permit condition 9.1.1.a.6.), you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
[40 C.F.R. §63.6625(j); 45CSR34] *(P120)*

9.4. Recordkeeping Requirements

9.4.1. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary emergency RICE.
[40 C.F.R. §§63.6655(e) and (e)(2); 45CSR34]

9.4.2. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) (permit conditions 9.5.4.(2)(ii) and (iii)), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
[40 C.F.R. §§63.6655(f) and (f)(1); 45CSR34]

9.5. Reporting Requirements

9.5.1. Refer to footnote 1 of Table 2c in permit condition 9.1.1.

9.5.2. The permittee shall report each instance in which they did not meet each operating limitation in 9.1.1.a. These instances are deviations from the operating limitations in this subpart. These deviations must be reported according to the requirements in 40 C.F.R. §63.6650.
[40 C.F.R. §63.6640(b); 45CSR34]

9.5.3. The permittee shall report each instance in which they did not meet the requirements in Table 8 of 40 C.F.R. 63, Subpart ZZZZ that applies.
[40 C.F.R. §63.6640(e); 45CSR34]

9.5.4. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary RICE under 40 C.F.R. 63 Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of this condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) of this condition. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§63.6640(f), (f)(1), (f)(2), and (f)(3); 45CSR34]

9.6. Compliance Plan

9.6.1. Reserved.

Appendix A

45CSR2/2A Monitoring and Recordkeeping Plan
Revised: May 5, 2016
Approved: May 23, 2016

Chemours – Washington Works
Source: Power House Area (Boilers)

45 CSR 2/2A Monitoring and Recordkeeping Plan (COMS)
Revised May 5, 2016

1. Facility Information

Facility Name: Chemours Washington Works

Mailing Address:
Post Office Box 1217
Washington, WV 26181-1217

Shipping Address:

8480 DuPont Road
Washington, WV 26181

Facility Contact:

David F. Altman, Sr. Environmental Control Consultant – (304) 863-4271

2. Facility Description

At the Washington Works site, Chemours manufactures acrylic plastics, fluorocarbon polymers, and fluorocarbon monomers and telomers.

Using five coal-fired boilers and one natural gas-fired boiler, the Power & Services unit at Washington Works supports the Chemours' manufacturing operations and those of any tenants by producing steam for process and building heating. No electricity is generated for sale as a result of these operations. The design heat input (DHI) and fuel type for each boiler is:

Boiler #2	64.2 MM Btu/hr.	coal-fired stoker
Boiler #3	94.0 MM Btu/hr.	coal-fired stoker
Boiler #4	125.0 MM Btu/hr.	coal-fired stoker
Boiler #5	181.0 MM Btu/hr.	coal-fired stoker
Boiler #6	241.0 MM Btu/hr.	coal-fired stoker
Boiler #8	181.0 MM Btu/hr.	natural gas-fired

The five coal-fired stoker steam boilers fit the 45 CSR 2, 2.10.c definition of a Type 'c' fuel burning unit (any hand-fired or stoker-fired fuel burning unit not classified as a Type 'a' unit). Boiler #2 vents through Stack #1 (Stack #1, Source ID #475). Similarly, Boilers #3 and #4 share Stack #2 (Source ID # 476). Boilers #5 and #6 share Stack #3 (Source ID # 477).

The five coal-fired boilers receive coal from a common supply. Chemours currently receives coal by truck from its suppliers. The coal is unloaded at either the ground level coal feeders or at the field storage pile along the west side of the Power House (B-301). Coal stored in the yard and needed for consumption is moved to the ground level feeder hopper using the bucket end loader. From the feeder hopper, the coal travels up an inclined conveyer belt to the bucket elevators, and tripper floor transfer belt to reach the six coal bunkers.

A mechanical dust collector serves each coal-fired boiler. Boilers #2, #3, #4, #5, #6 each have single-stage mechanical dust collectors.

Additionally, Boilers #2, #3, #4, #5, and #6 have bag houses. Boiler #2 has a single 5-compartment bag house. Boiler #3 has a double 3-compartment bag house. Boiler #4 has a single 4-compartment bag house. Boiler #5 has a double 3-compartment bag house. Boiler #6 has a double 4-compartment bag house.

The Boiler #8 utilizes only natural gas as a fuel. Combustion gases from this unit vent through Stack #4 (Source ID #479). Boiler #8 fits the 45 CSR 2, 2.20.b definition of a Type 'b' fuel burning unit (any fuel burning unit not classified as a Type 'a' or Type 'c' unit such as industrial pulverized fuel-fired furnaces, cyclone furnaces, gas-fired and liquid-fuel-fired units).

3. Regulatory Applicability

45 CSR 2A, 3.1.b states that the owner or operator of a fuel burning unit(s) with a DHI of less than 100 mm BTU/hr. shall be exempt from the periodic testing requirements of section 5 and the monitoring requirements of section 6. Boilers #2, and #3 have design heat inputs of 64.2 and 94 mm BTU/hr., respectively, and are thereby exempt from the Reg. 2A Section 5 (visible and weight emission testing) and Section 6 (visible emission monitoring plan requirements) provisions. However, the operation of Boilers #2, and #3 is subject to the record keeping requirements of 45 CSR 2A 7.1.a, as described in Section 6 of this plan. Boilers #2 and #3 were included in the baseline testing to demonstrate performance compared with the individual stack limits requested in Section 4.

Boiler #8 is exempt from Reg. 2A Section 5 (visible and weight emission testing) and Section 6 (visible emission monitoring plan requirements) per 45 CSR 2A, 3.1.a which exempts fuel burning unit(s) which combust only natural gas. The operation of Boiler #8 is subject to the record keeping requirements of 45 CSR 2A 7.1.a.4, as described in Section 6 of this plan.

4. Allowable Emission Rates for Individual Stacks

Per 45 CSR 2, 4.1.b, Type 'b' fuel burning units are limited to particulate emissions of 0.09 lb./mm BTU while Type 'c' fuel burning units are limited to particulate emissions per Table 45-2.

Per 45 CSR 2, 4.2, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Director. Attachment 1 provides details of the emission calculations and the registered stack emission rates. Table 1 provides a listing of each boiler source, fuel type used, design heat input, stack discharge source, the calculated allowable stack particulate emissions and the registered allocated stack particulate emissions limits. The registered allocated stack particulate emissions limits reflect baseline emission testing that was conducted during 2001-02 and approved by the WV DAQ on December 13, 2002.

In addition to the individual stack particulate emissions limits, per 45 CSR 2, 3.1, the opacity attributable to smoke and/or particulate is limited to 10% based on a 6-minute block average per EPA Method 9 measurement.

5. Monitoring Plan

45 CSR 2-8.2.a.1. *Direct measurement with a certified continuous opacity monitoring system (COMS) shall be deemed to satisfy the requirements for a monitoring plan. Such COMS shall be installed, calibrated, operated and maintained as specified in 40 CFR Part 60, Appendix B, Performance Specification 1 (PS1).*

Chemours currently monitors opacity on each of the coal fired boilers with Teledyne COMS that are installed in the outlet of each boiler just prior to entering the stack. Opacity measurements are reported to the facility data collection and handling system. The opacity monitors are calibrated automatically once each twenty-four hour period. The opacity monitors have been installed, calibrated, operated, and maintained in accordance with PS1.

Periodic Weight Emission Testing

Chemours performs periodic weight emission testing on Boilers #4, #5, and #6 in accordance with the testing cycles specified in 45 CSR 2A Section 5.2. The site will notify and obtain concurrence with WVDAQ regarding the testing frequency and the basis for this interpretation prior to the implementation of a testing schedule. A test protocol document will be provided for WV DAQ review and approval as per the requirements specified in 45 CSR 2 Appendix.

Control of Fugitive Particulate Matter

Stockpiling Coal – Coal is received in covered trucks from various suppliers. In most instances, the coal is deposited directly on the outside feed grate for transport into the coal bunker. Coal may also be unloaded at the outdoor coal pile. Water is sprayed on the coal pile as needed to control dusting. A street sweeper is utilized as needed to control the dust tracked onto site roads and driveways as a result of coal and ash transfer operations.

Transport of Coal – Coal is transferred from the feed grate to the coal bunkers on an enclosed conveying system, which includes an inclined conveyor belt, bucket elevators, and tripper floor transfer belt.

Stockpiling Ash – Ash is not stockpiled outdoors. Bottom ash and fly ash each have dedicated silos for storage.

Transport of Ash in Conveying Systems – Bottom ash is pneumatically conveyed from the ash crusher after boiler grates via covered conveying lines to the bottom ash silo. The fly ash is pneumatically conveyed from dust collectors, decant hoppers, and bag houses in covered conveying lines to the fly ash storage silo.

Transport of Ash in Vehicles – Ash is transported from the fly ash and bottom ash silos via covered trailers to an approved off-site disposal location. During loading, water is mixed with the ash and run through a conditioner (paddle mixer) to minimize dusting.

6.0 Start-Ups, Shutdowns, and Malfunctions

The visible emission standards per 45 CSR 2 applies at all times except during start-ups, shutdowns, and malfunctions. Operating records document the occurrence of these events. In addition, per 45 CSR 2, 9.1, Chemours Washington Works is required to maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

For all boilers, if excess particulate emissions or excess opacity result due to a malfunction, the following notification requirements are in effect:

- Excess opacity greater than 40% or any excess opacity period exceeding 30 minutes in any 24-hour period must be reported to the Director by telephone, FAX, or e-mail by the end of the next business day after becoming aware of the condition.

In addition, a report must be submitted to the Director within 30 days. The report must provide:

- Detailed explanation of the factors involved in or causes of the malfunction
- Starting and ending times of the period of excess emissions
- Estimate of the mass discharged during the malfunction
- Maximum opacity measured or observed during the malfunction
- Immediate remedial actions taken to correct or mitigate the effects of the malfunction
- Schedule for implementing corrective actions that will prevent a recurrence of the malfunction

Excess opacity less than 40% or any excess opacity period less than 30 minutes in any 24-hour period events are reported on a quarterly basis to the Director.

7. Recordkeeping

Record keeping requirements for fuel burning units are specified in 45CSR2A Section 7. As such, records are maintained for the following fuels used in the Power and Services boilers:

Boilers #2, #3, #4, #5, and #6 (per section 7.1.a.4) –

- Date and time of startup and shutdown of each boiler
- Hours of operation
- Calculated fuel consumed on a daily basis
- Ash and BTU content for each coal shipment.

Boiler #8 (per Section 7.1.a.1) –

- Date and time of startup and shutdown
- Hours of operation,
- Quantity of fuel burned each month

As per Section 7.1.b, records of relevant monitoring data and support information are maintained on-site for at least five years. Records to be retained include calibration and maintenance records, data recordings for continuous monitoring instrumentation, shift logs, emission observation forms, opacity excursion reports, and copies of all state-submitted reports. In addition, electronic process monitoring data is immediately available for the past two years. Data generated prior to the two year window can be retrieved from storage in a reasonable amount of time.

8. Reporting

Per 45 CSR 2A, 7.2.c addressing affected units covered by a COM based monitoring plan, the following reporting plan is utilized:

- quarterly preparation of a "Monitoring Summary Report"
- quarterly preparation of an "Excursion and Monitoring Plan Performance Report"

Routine reports required to be submitted to the Director must be postmarked by the 30th day following the end of each calendar quarter.

Per 45 CSR 2A, 7.2.c.1, if the total number of excursion hours for the reporting period is less than one percent (1%) of the total number of hours for the reporting period and the number of readings missing for the reporting period is less than five percent (5%) of the total number of readings agreed upon in this plan, the Monitoring Summary Report is submitted to the Director for that quarter; the Excursion and Monitoring Plan Performance Report is retained on site and shall be submitted to the Director upon request.

Per 45 CSR 2A, 7.2.c.2, if the number of excursion hours for the reporting period is one percent (1%) or greater of the total number of hours for the reporting period or the number of readings missing for the reporting period is five percent (5%) or greater of the total number of readings agreed upon in this plan, the Monitoring Summary Report and the Excursion and Monitoring Plan Performance Report shall both be submitted to the Director for that quarter.

A quarterly Monitoring Summary Report is prepared for Boilers #4, #5, and #6 and includes:

- total number of hours operated
- duration of excess emissions during startup and shutdown
- duration of excess emissions due to other causes

The Excursion and Monitoring Plan Performance Report includes:

- the magnitude of each excursion
- date and time of each excursion including starting and ending times
- specific identification of each excursion that occurs during startup, shutdowns, or malfunctions
- cause of any excursion
- corrective actions taken
- preventative measures adopted
- when data is unavailable, the date and time for each period, reason for the unavailability, and corrective actions taken

Table 1

Power and Services										
Emissions Summary										
TYPE C BOILER INFORMATION					STACK INFORMATION					
Boiler No.	Fuel Source	DHI (mmbtu/hr)	Baseline Testing PM Emissions (lb/hr)	Baseline Test Date	Stack	DHI (mmbtu/hr)	% of Total Emissions	Calculated Allowable Particulate Emissions (lb/hr)	Baseline Testing Particulate Emissions (lb/hr)	Registered Allocated Particulate Emissions Limits (lb/hr)
2	Coal	64.2	5.2	11/13-14/02	S1	64.2	9.1%	5.78	5.2	17.22
3	Coal	94	13.9	6/4-5-02	S2	219	31.1%	19.71	15.17	27.25
4	Coal	125	1.27	8/28-29/02						
5	Coal	181	8.12	12/13/01	S3	422	59.8%	37.98	13.95	19.00
6	Coal	241	5.83	9/5/02						
					Total	705.2		63.47	34.32	63.47

TYPE B BOILER INFORMATION					STACK INFORMATION					
Boiler No.	Fuel Source	DHI (mmbtu/hr)	Baseline Testing PM Emissions (lb/hr)	Baseline Test Date	Stack	DHI (mmbtu/hr)	% of Total Emissions	Calculated Allowable Particulate Emissions (lb/hr)	Baseline Testing Particulate Emissions (lb/hr)	Registered Allocated Particulate Emissions Limits (lb/hr)
8	Natural Gas	181	N/A	N/A	S4	181	100%	16.29	N/A	1.38*

*Permitted limit per Permit R14-14

Attachment 1

Supporting Calculation Documentation (Power and Services Boilers)

Regulation 2A Appendix B Site Registration Forms

Power and Services Boilers

Calculations of Allowable Emission Rates

Regulation 2A Registration Form Table 2

Type 'b' Units

Total design heat input = 193.8 mmBTU/hr

Regulation 2A Weight Emission Factor = 0.09 lb particulate/mmBTU

Weight Emission Rate = 193.8 x 0.09 = 17.44 lb particulate/hr

Type 'c' Units

Total design heat input = 705.2 mmBTU/hr

45CSR2 Table 45-2:
Allowable emission rate for 600 mmBTU/hr = 54 lbs/hr
Allowable emission rate for 3333 mmBTU/hr = 300 lbs/hr
Linearly interpolate between 600 and 3333 mmBTU/hr to determine the corresponding particulate emission rate for 705.2 mmBTU/hr

$$\frac{705.2\text{-}600}{3333\text{-}600}=\frac{x\text{-}54}{300\text{-}54}$$

$$\frac{705.2\text{-}600}{3333\text{-}600} * (300\text{-}54)+54 = x = 63.47\frac{lbs}{hr}$$

Regulation 2A Registration Form Table 3

Proportioning the allowable particulate emissions amongst the three stacks serving the coal fired boilers:

Stack 1 DHI of all units = 64.2 mmBTU/hr

$$\text{Emissions Rate}=\left(\frac{64.2}{705.2}\right)*63.47=5.78\frac{lbs}{hr}$$

Stack 2 DHI of all units = 219 mmBTU/hr

$$\text{Emissions Rate}=\left(\frac{219}{705.2}\right)*63.47=19.71\frac{lbs}{hr}$$

Stack 3 DHI of all units = 422 mmBTU/hr

$$\text{Emissions Rate}=\left(\frac{422}{705.2}\right)*63.47=37.98\frac{lbs}{hr}$$

Total Emissions from all coal fired units $= 5.78 + 19.71 + 37.98 = 63.47 \frac{lbs}{hr}$

Stack 4 DHI of all units = 181 mmBTU/hr

Allowable Emission Rate$=181*0.09=16.29 \frac{lbs}{hr}$

However, the permitted emission rate per Permit R14-14 = 1.38 lbs/hr

Registered Stack Emission Rates for Power & Services Coal Fired Boilers

Stack	Calculated Allowable Rates (lb/hr)	Expected Rate per Baseline Testing (lb/hr)	Registered Stack Rates (lb/hr)
1	5.78	5.2	17.22
2	19.71	15.17	27.25
3	37.98	13.95	19.00
Total	63.47	34.32	63.47

Chemours Regulation 2A Registration Forms

Sources: Power & Services Boilers, "T" Area #9 Furnace

Table 1- Sum of Design Heat Inputs for similar Units					
Type 'a'		Type 'b'		Type 'c'	
(A)	(B)	(C)	(D)	(E)	(F)
unit ID	DHI (mmBTU/hr)	unit ID	DHI (mmBTU/hr)	unit ID	DHI (mmBTU/hr)
		P31	181	P02	64.2
		T1CD	12.8	P03	94
				P04	125
				P05	181
				P06	241
Sum of DHI for all Type 'a' units	0	Sum of DHI for all Type 'b' units	193.8	Sum of DHI for all Type 'c' units	705.2

Table 2 - Weight Emission Limits for Similar Units

(A)	(B) Total Design Heat Input (mmBTU/hr)	(C) Factor from 45CSR2 Subsection 4.1 (lb/mmBTU)	(D) Weight Emission rate (lb/hr)[1,2]
Sum of DHI for all Type 'a' units	0	0.05	0
Sum of DHI for all Type 'a' units	193.8	0.09	17.44
Sum of DHI for all Type 'a' units	705.2	Table 45-2 45CSR2	63.47

[1] If the calculated weight emission limit for Type 'a' units is greater than 1200 lbs/hr, then 1200 lbs/hr is the limit

[2] If the calculated weight emission limit for Type 'b' units is greater than 600 lbs/hr, then 600 lbs/hr is the limit

Chemours Regulation 2A Registration Forms

Sources: Power & Services Boilers, "T" Area #9 Furnace

Table 3 - Registration of Standard Individual Stack Emission Rates

(A) Stack ID	(B) Sum of DHI for all units venting thru stack (mmBTU/hr)	(C) Sum of DHI for all Similar Units (Table 2, Column	(D) Wt. Emission Rate for all Similar Units (Table 2,	(E) Stack Emission Rate (lb/hr) [(B/C)*D=E]
475	64.2	705.2	63.47	5.78
476	219	705.2	63.47	19.71
477	422	705.2	63.47	37.98
479	181	193.8	17.44	1.38
605	12.8	193.8	17.44	0.09
Stack Allowable Emission Rate (lb/hr)				64.94

Note: Sources P31 (Stack #479) and T1CD (Stack #605) have particulate emission limits specified in Reg. 13 permits and these are reflected in Table 3 (E).

Sources: Power & Services Boilers 2 - 6

Table 4 - Registration of Alternative Stack Emission Rates

(A) Stack ID	(B) Indentify each unit venting thru stack	(C) Alternative Stack Emission Rate (lb/hr)
475	P02	17.22
476	P03/P04	27.25
477	P05/P06	19
Sum of Alternative Stack Emission Rates (lb/hr)[1]		63.47

[1] The sum of the alternative stack emission rates for similar units shall not exceed the weight emission rates for all similar units in Table 2, Column D.

Appendix B

45CSR10/10A Monitoring and Recordkeeping Plan
Revised: May 4, 2015
Approved: May 26, 2015

Chemours – Washington Works
Source: Power House Area (Boilers)
45 CSR 10/10A Monitoring and Recordkeeping Plan (Non-CEMS)
Revision 5

1. Facility Information

Facility Name: Chemours Washington Works

Mailing Address:
Post Office Box 1217
Parkersburg, WV 26102-1217

Shipping Address: Route
892 South Washington,
WV 26181

Facility Contact:
David Altman, Sr. Environmental Control Consultant – (304) 863-4271

In accordance with 45 CSR 10, 8.2.c, this document is the proposed plan for monitoring compliance with the sulfur dioxide weight emission standards expressed in 45 CSR 10, 3.

2. Facility Description

At the Washington Works site, Chemours manufactures acrylics plastics, fluorocarbon polymers, and fluorocarbon monomers and telomers.

Washington Works is located in Wood County, WV, which is Priority Classification II and part of the Region II, Parkersburg-Marietta Interstate Air Quality Control Region (West Virginia-Ohio) per Table 45-10A.

Using five coal-fired boilers and one natural gas-fired boiler, the Power & Services unit at Washington Works supports the manufacturing operations by producing steam for process and building heating. No electricity is generated for sale as a result of these operations. The design heat input (DHI) for each boiler is:

#2 boiler	64.2 MM Btu/hr.	coal-fired stoker
#3 boiler	94.0 MM Btu/hr.	coal-fired stoker
#4 boiler	125.0 MM Btu/hr.	coal-fired stoker
#5 boiler	181.0 MM Btu/hr.	coal-fired stoker
#6 boiler	241.0 MM Btu/hr.	coal-fired stoker
#8 boiler	181.0 MM Btu/hr.	natural gas-fired

The coal-fired stoker steam boilers fit the 45 CSR 10, 2.8.c definition of a "Type 'c'" fuel burning unit ("any hand-fired or stoker-fired fuel burning unit not classified as a Type 'a' unit"). Boilers #2 vents through Stack #1 (source ID #475). Similarly, Boilers #3 and #4 share Stack #2 (Source ID #476) and Boilers #5 and #6 share Stack #3 (Source ID #477).

The coal-fired boilers receive coal from a common supply. Chemours currently receives coal by truck from its suppliers. The coal is unloaded at either the ground level coal feeders or at the field storage pile along the west side of the Power House (B-301). Coal stored in the yard and needed for consumption is moved to the ground level feeder hopper using the bucket end-loader. From the feeder hopper, the coal travels up the inclined conveyer belt to the bucket elevators, and tripper floor transfer belt to reach the five coal bunkers.

The #1 coal fired boiler is not in service.

The #8 Boiler is exempt from Reg 10A per 45 CSR 10A, 3.1.b which exempts "fuel burning unit(s) which combust natural gas, wood, or distillate oil, alone or in combination" from the testing, monitoring, recordkeeping and reporting provisions of the rule.

3. Allowable Emission Rates for Individual Stacks

Table 1 lists each source and the potential to emit. Per 45 CSR 10, 3.1.e, for Priority II regions and Type 'b' and Type 'c' fuel burning units, sulfur dioxide emissions are limited to "the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour." Attachment 1 ("Appendix B") provides the details of the potential to emit calculations. The potential-to-emit calculations provide the maximum sulfur dioxide emissions allowed for each coal-fired boiler, regardless of firing rate. Thus, the sulfur content of a particular coal shipment could be greater than that defined by 45 CSR 10A, 2.2 as long as the combination of firing rate and coal sulfur content resulted in SO_2 emissions as allowed under 45 CSR 10, 3.1.e, 3.4.a, and 3.8.

Regulation 10 section 3.4 provides for the operation of a unit or units to exceed the calculated SO_2 emission rate by a maximum of 25% (on a per stack basis) providing that the allowable rate "cap" for the sum of all such stacks at the site is not exceeded on a per day basis. This variance provides for emission rates greater than the MDHI * 3.1 on a stack or multiple stacks providing the other units are operated at an emission rate not exceeding the sum of the allowable rates for all such units/stacks at the site. This circumstance would require adjustment of the operating rates of the other site boilers in order to be in ongoing compliance with the site cap total allowable rate.

Table 2 summarizes the applicable regulatory requirements for each boiler, including emission limits, frequency for coal analysis, and weight emission testing.

4. 45 CSR 10 Monitoring Plan

In accordance with 45 CSR 10 and 10A, Chemours Washington Works proposes the following plan that includes baseline weight emission testing, annual weight emission testing, analysis of each shipment of coal to determine compliance with the sulfur dioxide weight emissions standards, and recordkeeping.

4.a Baseline Weight Emission Testing (45 CSR 10A, 5.1.a) – Using a contract testing firm, DuPont performed baseline SO_2 weight emission testing on the #1, #2, #3, #4, #5, and #6 coal-fired boilers within 12 months of the effective date for 45 CSR 10A. The test protocol was conducted following the methods described in 40 CFR Part 60, Appendix A. The six boiler discharges were sampled following EPA Methods 1-6 to determine the mass emission rate of sulfur dioxide. The Method 5 particulate train was modified to conduct the SO_2 analysis simultaneously by replacing the impinger water with a 3% peroxide solution. The impinger solution was analyzed for sulfate content by an outside laboratory. The test protocol was submitted to WV DAQ for approval.

In conjunction with the baseline weight emission testing, the coal was characterized for its heat, sulfur, volatile, fixed carbon, ash, and moisture content. The operating variables for each boiler (over fire air header pressure, flue gas oxygen content) was recorded on the Vantage computer system and correlated to each specific test period. During testing, each boiler was operated at a rate greater than or equal to 80% of its design heat input. 45CSR2 Appendix, 5.1 states that, "All compliance test runs, which are to be included in the test result for a unit or a specified number of units, shall be conducted while the unit or group of units is operated at or above the normal maximum operating load for the specified unit or group of units; while fuel or combinations of fuel representative of normal operation are being burned; and under such other relevant conditions as the Director may specify based on representative performance of the specified units." Since the particulate and SO_2 weight emission testing was conducted simultaneously and review of operating records shows that 80% of the design heat input has been about the normal maximum operating load of the boilers, this operating level was used during the testing.

4.b Annual Weight Emission Testing – Table 3 summarizes the relationships among heat input and coal heat content and percent sulfur with respect to frequency of weight emission testing as defined in 45 CSR 10A, 5.1.a. Chemours will perform annual weight emission testing on the #2, #3, #4, #5, and #6 boilers. The annual testing is based on the expectation of burning a coal blend for at least one shipment per year that contains greater than 90% of the allowable sulfur content as defined by 45 CSR 10A, 5.1.a.

As for the baseline weight emission testing, Chemours will use a contract testing firm and the test protocol will be conducted following the methods described in 40 CFR Part 60, Appendix A. The stacks will be sampled following EPA Methods 1-6 to determine the mass emission rate of sulfur dioxide. The Method 5 particulate train will be modified to conduct the SO_2 analysis simultaneously by replacing the impinger water with a 3% peroxide solution. The impinger solution will be analyzed for sulfate content by an outside laboratory. Any changes to the previously accepted test protocol will be submitted to WV DAQ for review and concurrence.

In conjunction with the annual weight emission testing, the coal will be characterized for its heat, sulfur, volatile matter, fixed carbon, ash, and moisture content. The operating variables for each boiler (over fire air header pressure, flue gas oxygen content) will be recorded on a data historian system and correlated to each specific test period. During testing, each boiler will be operated at or above the normal maximum operating load.

If Chemours is able to contractually secure long-term coal supplies containing less than 90% of the sulfur content as calculated from the "factor", the DHI, and the BTU value of the coal, Chemours will notify DAQ of a change in the testing frequency to once every 5 years. Such coal supplies would have Table 3 sulfur contents between the values shown in columns 3 and 5. For a coal containing an average heat value of 13600 BTU/lb. and a 45 CSR 10, 3.1.e factor of 3.1 pounds SO_2 per million BTU design heat input, 2.11% is the maximum sulfur content of a coal that could be burned at the design heat input. In order to qualify for weight emission testing once every five years, the maximum sulfur content of any coal shipment would be 1.899%. Attachment 2 shows the calculations supporting columns 1 through 5 of Table 2.

4.c Coal Analysis – Per 45 CSR 10A, 6.1.c, coal monitoring requirements derive from burning fuels with sulfur contents "that equate[s] to an SO_2 emission rate greater than or equal to 90% of the rate, calculated as the product of the TDHI and applicable factor". Table 3, columns 6, 7, and 8 shows the interrelationship among operating rate as a percent of TDHI, coal heat value, and sulfur content of the coal. Column 8 shows the percent sulfur in the coal that triggers the requirement for either continuous emission monitoring systems (CEMS) for SO_2 or daily "as burned" fuel analyses. For operating rates and corresponding sulfur contents less than those listed in Column 8, the sulfur analysis requirement is "per shipment".

Chemours expects to burn coal blends with sulfur contents between 1.8 and 2.25% sulfur. Historically, normal maximum operating rates have been approximately 80-85% of DHI. Thus,

depending upon relative proportions of low- and medium-sulfur coal in the blend at any given time, Chemours might be covered by the "daily as burned" or "per shipment" sulfur analysis requirements. To satisfy both situations and to know at all times what the sulfur content is of the blended coal, Chemours will utilize one of all the following options:

Option 1: Working with a coal terminal, Chemours would arrange for blending of coal from its various suppliers. The coal purchased for Chemours Washington Works would be physically segregated from that of other customers of the coal terminal. Once the segregated pile is made and sampled, no other coal would be added to the pile. The segregated pile would then be worked down to depletion while a new pile was being accumulated and blended. This would allow the blended coal to meet the definition of a "shipment" per 45 CSR 2 ("any discrete, identifiable quantity of a fuel for which a quality report is available. For example, a fuel shipment may be all fuel delivered from a specific lot, identified by the lot number, or fuel delivered under a specific purchase order number."). In addition, because all coal burned would be coming out of a segregated pile covered under one analysis, this would also satisfy the requirement to provide a "daily 'as burned'" analysis.

At the coal terminal, the blended, segregated coal would be sampled per ASTM Method D2234-99 ("Standard Practice for Collection of a Gross Sample of Coal", 2000).

Quality Assurance/Quality Control – in order to independently verify the coal terminal's analyses, Chemours proposes that the segregated pile will be sampled every calendar quarter (collecting a minimum of 36 grab samples, approximately 8 ounces each, from the accessible perimeter of the pile), composited, and a 2-3 pound cut be analyzed for heat, sulfur, volatile matter, fixed carbon, ash, and moisture content. These results will be recorded and kept for a period of 5 years.

Option 2: Chemours would sample the coal from the inclined transfer belt that feeds the tripper floor transfer belt. The tripper floor transfer belt feeds the bunkers for the #2 through #6 Boilers.

Chemours would use an automated coal sampler to periodically take a sample and add it to a sample receiver. To satisfy ASTM D2234-00, Table 1, footnote c when receiving coal from more than one source, Chemours will collect a minimum of 35 2-pound grab samples per day while the inclined transfer belt is running. Otherwise, when receiving coal from a single source, a minimum of 15 1-pound grab samples will be collected through the sampling day. At the end of the sampling day, the previous day's sample will be removed. The composited sample will be thoroughly blended and then transferred to a suitable container for transport to a certified laboratory. The lab will pulverize the sample prior to analysis. This arrangement will satisfy the "daily 'as burned'" analytical requirement described in 45 CSR 10A, 6.1.c.2.

If the automated coal sampler is out of service or unavailable, manual grab samples (approximately 8 ounces each) will be collected at the coal feeder grate each time before the operator starts the conveyor system. The conveyor system is started about once per hour, resulting in about 48 scoops per day. The scoops will be placed into a container with a lid. At the conclusion of each sampling day, the container's contents will be thoroughly blended and a 2-3 pound sample will be removed and sent to the lab for size reduction and analysis for heat, sulfur, volatile matter, fixed carbon, ash, and moisture content. These results will be recorded and kept for a period of 5 years.

Option 3: Alternatively, if Chemours elects to purchase coal from a single supplier, the supplier will arrange for sampling and analysis of the coal per the methods referenced in this plan. The coal will be segregated and staged so that one sampling and analysis event will cover each shipment. The segregation and sampling process will satisfy the intent of performing a daily "as burned" analysis of the fuel in accordance with applicable ASTM procedures and test methods, per 45 CSR 10A, 6.1.c.2. Records will be retained for 5 years per 45 CSR 10A, 7.1.d.

Quality Assurance/Quality Control – in order to independently verify the coal vendor's analyses, Chemours proposes that the segregated pile will be sampled every calendar quarter (collecting a minimum of 36 grab samples, approximately 8 ounces each, from the accessible perimeter of the pile), composited, and a 2-3 pound cut be analyzed for heat, sulfur, volatile matter, fixed carbon, ash, and moisture content. These results will be recorded and kept for a period of 5 years.

Analytical Details: Using a certified analytical laboratory, the sample will be prepared for analysis in accordance with ASTM Method D2013-00 ("Standard Method of Preparing Coal Samples for Analysis", 2000). Testing of the coal will either be accomplished by a certified independent analytical lab or a Chemours on-site laboratory certified to perform this work.

Per 45 CSR 10A, 6.4.a, 6.4.b, and 6.4.c, the following parameters will be analyzed for each blended, segregated coal pile ("shipment") or daily "as burned" sample:

Heat value per ASTM D5865-99a ("Standard Test Method for Gross Calorific Value of Coal and Coke", 2000) or equivalent. Heat value is required to calculate the maximum percent sulfur allowed under 45 CSR 10A, 5.1.a and 6.1.c. The current minimum value is 12500 Btu/lb. while the typical value is around 13500 Btu/lb.

Total sulfur per ASTM D3177-89 ("Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke", 2000) or ASTM D4230-00 ("Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods", 2000) or equivalent. Total sulfur is required to calculate compliance with 45 CSR 10A, 2.5 and 6.1.c. The current maximum value is 2.5% and the typical values range between 1.5 and 2.45% depending upon coal supplier.

Volatile matter, fixed carbon, ash, and moisture per ASTM D3172-89 ("Standard Practice for Proximate Analysis of Coal and Coke", 1997) or D5142-90 ("Standard Test Methods for Proximate Analysis of the Analysis Sample of Coal and Coke by Instrumental Procedures", 2000) or equivalent. These parameters are used internally to determine coal quality and resulting compliance with the purchase specification. Volatile matter is typically 35% with a minimum of 30%. Fixed carbon is usually around 50-52%.

Ash is typically around 8% with a maximum of 11%. Moisture is typically around 5% with a maximum of 8%.

Per 45CSA10A, 6.4, Table 4 shows the expected ranges for the coal analyses and the basis for selecting these parameters. The maximum and minimum values shown in Table 4 were selected based on meeting emission limits, efficient performance of the boilers, and compatibility with the mechanical dust collection and baghouse systems based on operating experience and input from equipment vendors and coal suppliers (45 CSR 10A, 6.4.e).

4.d Response Plan During Excursions (45 CSR 10A, 6.4.g) – If the sampling program shows that the coal blend is higher in sulfur than desired, the boiler operating rates will be adjusted to maintain compliance with the SO_2 emissions cap, for the five coal-fired boilers as a group.

In addition, the coal terminal and coal suppliers will be contacted to adjust the formulation of the coal blend to assure that the next shipment or segregated pile meets the sulfur concentrations shown on Table 1 that will allow the boilers to be operated at the desired rates.

45CSR10, 9.1 states, "Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director." If the above situation occurs (e.g., due to supply or transportation problems with the low sulfur coal now used in the blend) and the operating rate cannot be adjusted downward sufficiently to meet the current SO_2 emissions cap, Chemours will contact the Director to request a variance to the Reg 10/10A provisions. If an extension of the variance is required, Chemours will provide a corrective program.

4.e Records Management - Chemours has tracked the above information in spreadsheet form and developed monthly and annual weighted averages based on the analytical information provided by the suppliers and the amount of coal purchased in a given period. Through a data historian system, information is recorded about date and time of start-up and shutdown as well as

information about the furnace operating rates (45 CSR 10A, 7.1.a); this data is available "live" for two years and will be retrievable from data tapes for the 3 previous years. Paper operating logs for the Power House operations and supporting information including relevant instrument calibration records and maintenance records will be retained in hard copy for 5 years in accordance with the requirements of 45 CSR 10A, 7.1.d.

Alternatively, if Chemours elects to purchase coal from a single supplier, the supplier will arrange for sampling and analysis of the coal per the methods referenced above. The coal will be segregated and staged so that one sampling and analysis event will cover each shipment. The segregation and sampling process will satisfy the intent of performing a daily "as burned" analysis of the fuel in accordance with applicable ASTM procedures and test methods, per 45 CSR 10A, 6.1.c.2. Again, records will be retained for 5 years per 45 CSR 10A, 7.1.d.

5. Reporting –Chemours will prepare quarterly "Monitoring Summary" and "Excursion and Monitoring Plan Performance" reports. Quarterly submittals will be postmarked by January 30, April 30, July 30, and October 30 of each respective year.

If the total number of excursions for the reporting period is less than 4% of the total number of readings and the number of readings missing for the reporting period is less than 5% of the total number of readings agreed upon in the monitoring plan, the Monitoring Summary report will be submitted to the Director of the Office of Air Quality. In this case, the Excursion and Monitoring Plan Performance Report will be maintained on-site and submitted to the Director of the Office of Air Quality upon request. In all other circumstances, both reports will be submitted to the Director of the Office of Air Quality.

The Excursion and Monitoring Plan Performance Report will include the following information:

- the magnitude of each excursion, and the date and time, including starting and ending times, of each excursion;

- specific identification of each excursion that occurs during startups, shutdowns, and malfunctions of the facility;

- the nature and cause of any excursion, if known, and the corrective action(s) taken and preventative measures adopted, if any;

- the date and time identifying each period when the data is unavailable, the reason for data unavailability, and the corrective action(s) taken: and

- if no excursions occurred during the quarter or there were no periods of data unavailability, that information will be stated in the report.

Pending availability of a report format provided by the Office of Air Quality, a format similar to that used for the "Emissions Data Summary" (45 CSR 10A, Appendix A) will be used for the Monitoring Summary Report. The Excursion and Monitoring Plan Performance Report will be

prepared in a narrative and tabular form unless the Office of Air Quality provides a preferred format.

Table 1

45 CSR 10A Monitoring and Recordkeeping Plan

Coal Blend Heat Content = 13618 Btu/lb

Unit	Stack	DHI (mmBTU/hr)	Factor (lb SO2/ mmBTU)	Weight Emission Rate (lb SO2/hr)	Stack Emissions (lb SO2/hr)	% S 2.4% Max Heat Rate Input (mmBTU/hr)	% S 2.3% Max Heat Rate Input (mmBTU/hr)	% S 2.2% Max Heat Rate Input (mmBTU/hr)	% S 2.111% Max Heat Rate Input (mmBTU/hr)	% S 2.0% Max Heat Rate Input (mmBTU/hr)	% S 1.9% Max Heat Rate Input (mmBTU/hr)	% S 1.8% Max Heat Rate Input (mmBTU/hr)
P02(B2)	475(S1)	64.2	3.1	199.02	199.02	56.46	58.92	61.60	64.19	64.2	64.2	64.2
P03(B3)	476(S2)	94	3.1	291.4		82.67	86.27	90.19	93.99	94	94	94
P04(B4)	476(S2)	125	3.1	387.5	678.9	109.94	114.72	119.93	124.99	125	125	125
P05(B5)	477(S3)	181	3.1	561.1		159.19	166.11	173.66	180.98	181	181	181
P06(B6)	477(S3)	241	3.1	747.1	1308.2	211.96	221.17	231.23	240.98	241	241	241

Unit	Stack					Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)
P02(B2)	475(S1)					50.9	53.1	55.5	57.8	57.8	57.8	57.8
P03(B3)	476(S2)					74.5	77.7	81.3	84.7	84.7	84.7	84.7
P04(B4)	476(S2)					99.0	103.3	108.0	112.6	112.6	112.6	112.6
P05(B5)	477(S3)					143.4	149.6	156.5	163.0	163.1	163.1	163.1
P06(B6)	477(S3)					191.0	199.3	208.3	217.1	217.1	217.1	217.1
				coal-fired	total	558.8	583.1	609.6	635.3	635.3	635.3	635.3

Table 2

Triggers for Weight Emission Testing and CEMS or Daily "As Burned" Analysis

Factor = 3.1 lb SO2/mm BTU Coal-Fired TDHI = 705.2 mm BTU/hr
SO2 Cap = 2186.12 lb SO2/hr= 1094.289 lb S/hr

Coal Heat Value (BTU/lb)	Sulfur Content (% S)	45 CSR 10A, 5.1.a %S Trigger for Annual Weight Emission Testing (%S)	%S Range for Once/5ys Emission Testing (%S)	%S Trigger for No Weight Emission Testing (%S)	Operating Rate as a Percent of TDHI (%)	Coal Heat Value (BTU/lb)	45 CSR 10A, 6.1.c %S Trigger for CEMS or Daily "As Burned" (%S)
12000	1.862%	1.676%	<----->	0.931%	100%	13333	1.86%
12100	1.878%	1.690%	<----->	0.939%	95%	13333	1.96%
12200	1.893%	1.704%	<----->	0.947%	90%	13333	2.07%
12300	1.909%	1.718%	<----->	0.954%	85%	13333	2.19%
12400	1.924%	1.732%	<----->	0.962%	80%	13333	2.33%
12500	1.940%	1.746%	<----->	0.970%	75%	13333	2.48%
12600	1.955%	1.760%	<----->	0.978%	70%	13333	2.66%
12700	1.971%	1.774%	<----->	0.985%	65%	13333	2.86%
12800	1.986%	1.788%	<----->	0.993%			
12900	2.002%	1.802%	<----->	1.001%			
13000	2.017%	1.816%	<----->	1.009%			
13100	2.033%	1.830%	<----->	1.016%	100%	13500	1.89%
13200	2.048%	1.843%	<----->	1.024%	95%	13500	1.98%
13300	2.064%	1.857%	<----->	1.032%	90%	13500	2.09%
13400	2.079%	1.871%	<----->	1.040%	85%	13500	2.22%
13500	2.095%	1.885%	<----->	1.047%	80%	13500	2.36%
13600	2.110%	1.899%	<----->	1.055%	75%	13500	2.51%
13700	2.126%	1.913%	<----->	1.063%	70%	13500	2.69%
13800	2.141%	1.927%	<----->	1.071%	65%	13500	2.90%
13900	2.157%	1.941%	<----->	1.078%			
					100%	13666	1.91%
					95%	13666	2.01%
					90%	13666	2.12%
					85%	13666	2.25%
					80%	13666	2.39%
					75%	13666	2.54%
					70%	13666	2.73%
					65%	13666	2.94%

Attachment 1
Reg 10A Appendix B – Registration

Sources: Power & Services Boilers;

Table 1 - Sum of Design Heat Inputs for Similar Units					
Type 'a'		Type 'b'		Type 'c'	
(A) Unit ID	(B) DHI (mmBTU/hr)	(C) Unit ID	(D) DHI (mmBTU/hr)	(E) Unit ID	(F) DHI (mmBTU/hr)
				P02	64.2
				P03	94
				P04	125
				P05	181
				P06	241
Sum of DHI for all Type 'a' units	0	Sum of DHI for all Type 'b' units	0	Sum of DHI for all Type 'c' units	705.2

Sources: Power & Services Boilers:

Table 2 - Weight Emission Limits for Similar Units			
(A)	(B) Total Design Heat Input (mmBTU/hr)	(C) Factor from 45CSR10, Section 3 (lb/mmBTU)	(D) Weight Emission Rate (lb/hr) [B * C = D]
Sum of DHI for all Type 'a' units			0
Sum of DHI for all Type 'b' units			0
Sum of DHI for all Type 'c' units	705.2	3.1	2186.12

Sources: Power & Services Boilers

Table 3 - Registration of Standard Individual Stack Emission Rates					
(A) Stack ID	(B) Identify each unit venting thru stack	(C) Sum of DHI for all units venting thru stack (mmBTU/hr)	(D) Sum of DHI for all Similar Units (Table 2, Column B) (mmBTU/hr)	(E) Wt. Emission Rate for all Similar Units (Table 2, Column D) (mmBTU/hr)	(F) Stack Emission Rate (lb/hr) [(C/D)*E=F]
475	P02	64.2	705.2	2186.12	199.02
476	P03/P04	219	705.2	2186.12	678.9
477	P05/P06	422	705.2	2186.12	1308.2
Stack Allowable Emission Rate (lb/hr)					2186.12

Sources: Power & Services Boilers

In Table 4 below, the owner or operator may register individual stack allowable emission rates, differing from those calculated in Table 3, as provided for in 45CSR10, Subsection 3.4.

Table 4 - Registration of Alternative Stack Emission Rates		
(A) Stack ID	(B) Identify each unit venting thru stack	(C) Alternative Stack Emission Rate (lb/hr)
Sum of Alternative Stack Emission Rates (lb/hr)[1]		0

[1] The sum of the Alternative Stack Emission Rates for similar units shall not exceed the Weight Emission Rates for all Similar Units in Table 2, Column D.

Attachment 2
Example Calculations Supporting Table 3, Columns 1-5

3.1 lb. SO_2/mm BTU x 705.2 mm BTU/hr. = 2186.12 lb. SO_2/hr.

2186.12 lb. SO_2/hr. x 32.066 lb. S/64.06 lb. SO_2 = 1094.289 lb. S/hr.

Sulfur Content of Coal:

$$\frac{3.1 \text{ lb. } SO_2}{\text{mm BTU}} \times \frac{32.066 \text{ lb. S}}{64.06 \text{ lb. } SO_2} \times \frac{12000 \text{ BTU}}{\text{lb. coal}} \times \frac{\text{mm BTU}}{1000000 \text{ BTU}}$$

= 0.0186 lb. S/lb. coal

= 1.86% S in coal

Trigger for Annual Weight Emission Testing for SO_2:

90% x S =

0.9 x 1.86%

= 1.676% S

Trigger for Once Every Five Year Weight Emission Testing for SO_2:

50% x S =

0.5 x 1.86%

= 0.93% S

Appendix C
ATTACHMENT A – EXAMPLE DATA FORM
Chemours Boiler Number 8 Fuel Usage Report(1)(2)(3)

The Chemours Company FC, LLC – Washington Works
Permit No. R14-14, Plant ID No. 10700182

Month	Natural Gas Combusted (scf)	12-Month Rolling(3) Average (MMscf)	Initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

Note:

(1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of this sheet must be completed within fifteen (15) days of the end of the reporting period.

(2) This record shall be maintained on site for a period of five (5) years from the date of certification. It shall be made available, upon request, to the Director or his (her) authorized representative.

(3) Twelve month rolling average of natural gas combusted should not exceed 1,585,560,000 scf.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry.

Signature[1] (please use blue ink) _____ Responsible Official or Authorized Representative _____ Date

Name & Title (please print or type) _____ Name _____ Title

Telephone No. _____ Fax No. _____

---

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.

Appendix D:

R13-3223 Attachment A for the Power and Service Support unit only (Part 10 of 14)
45CSR21 and 45CSR27 Source List

Emission Point ID	Source ID	Source Description	Control Device ID	Service (VOC/HAP /TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
P201E	P201	Equalization Tank	None	TAP-F	R13-2654	No	No	Yes	
P202E	P202	Emergency Divert Tank	None	TAP-F	R13-2654	No	No	Yes	
P205E	P205	Splitter Box	None	TAP-F	R13-2654	No	No	Yes	
P206E	P206	Areation Tank	None	TAP-F	R13-2654	No	No	Yes	
P207E	P207	Areation Tank	None	TAP-F	R13-2654	No	No	Yes	
P208E	P208	Areation Tank	None	TAP-F	R13-2654	No	No	Yes	
P209E	P209	Deareation Tank	None	TAP-F	R13-2654	No	No	Yes	
P210E	P210	Clarifier E	None	TAP-F	R13-2654	No	No	Yes	
P211E	P211	Clarifier C	None	TAP-F	R13-2654	No	No	Yes	
P212E	P212	Clarifier W	None	TAP-F	R13-2654	No	No	Yes	
P215E	P215	Calrifier Sump	None	TAP-F	R13-2654	No	No	Yes	
P216E	P216	Sludge Building	None	TAP-F	R13-2654	No	No	Yes	
P218E	P218	Dewatering Pit	None	TAP-F	R13-2654	No	No	Yes	

Note #1 - Formaldehyde (TAP-F) does not qualify as a MACT Wastewater under any Standard.
Note #2 - MON MACT has a process vent definition cut-off at 50 ppm. Below this there are no controls since it is not considered to be a process vent.
Note #3 - The WWTP located at Washington Works does not receive any Group 1 Streams as defined by the rule. Hence the applicability of 40 CFR 63.135 and 40 CSR 63.145 are very, very limited.
Note #5 - The affected R13 Permit refers to the most current version of that Permit.

Appendix E

U.S. EPA Letter Granting Variance for Boiler MACT Startup Time

DATE RECEIVED
3-29-16
ENVIRONMENTAL
OFFICE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Robert J. Fehrenbacher
Plant Manager
The Chemours Company
Washington Works
8480 DuPont Road
PO Box 1217
Washington, WV 26181

MAR 15 2016

Dear Mr. Fehrenbacher:

This letter is in response to The Chemours Company's ("Chemours") January 6, 2016 request for a Clean Air Act variance for its facility located in Washington, West Virginia. Specifically, Chemours is seeking a variance from the work practice standards pertaining to boiler startups which are specified in the federal National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler NESHAP), found at 40 CFR Part 63, Subpart DDDDD.

The U.S. Environmental Protection Agency, Region III (EPA) is responding to Chemours' request on behalf of the West Virginia Department of Environmental Protection (WV DEP). EPA is responding to Chemours' request because the WV DEP has not yet been delegated the authority to act on such requests.

In its request, Chemours explains that it operates five coal-fired spreader stoker boilers (designated as P02 through P06) at its plant located in Washington, West Virginia. Chemours notes that the Boiler NESHAP's work practice standards applicable to the startup of these boilers, as they are specified at Table 3 to Subpart DDDDD of part 63 (item #5(c)(2)), require Chemours to engage the particulate matter (PM) controls for the boilers within "one hour after first feeding fuels that are not clean fuels." Chemours explains that its facility requires additional time to engage its PM controls during startup of its boilers, and that it is therefore seeking a startup variance as allowed under the Boiler NESHAP's provisions at 40 CFR 63.7555(d)(13).

Chemours specifically requests 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 on-line."

Under the Boiler NESHAP's variance provisions at 40 CFR 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. These requirements include, in summary: 1)

demonstrating that engaging their PM controls within one hour would cause a "documented manufacturer identified safety issue;" 2) identifying with specificity the details of the manufacturer's statement of concern; 3) demonstrating that their PM control devices are adequately designed and sized to meet the applicable PM emissions limit; 4) demonstrating that they will be using manufacturer recommended procedures to alleviate or prevent the identified safety issue; and, 5) demonstrating that they will use clean fuel during startups to the maximum extent possible.

EPA has concluded that Chemours has demonstrated, based on the information Chemours supplied in its original January 7, 2016 request, and in other supplementary submittals that Chemours has provided at EPA's request, that Chemours meets these requirements. EPA discusses Chemours' submittals and EPA's review of them in more detail in the enclosure to this letter.

Because Chemours has shown, based on the information it submitted, that it meets the Boiler NESHAP's requirements for obtaining a startup variance, EPA is approving Chemours 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 on-line." However, EPA is giving this approval with a condition pertaining to the allowed startup time.

This condition is that if Chemours finds during a particular 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 Chemours shall bring the PM control device of the boiler on-line as expeditiously as is safely possible.

This approval is contingent on Chemours complying with the Boiler NESHAP as required for sources relying on paragraph (2) of the definition of "startup" (with the exception of 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 to use clean fuels when igniting the coal bed in its boilers.

Please note that sources which qualify for variances from the Boiler NESHAP's work practice requirements pertaining to PM control during boiler startups are required to continue to comply with all other work practice requirements specified in the Boiler NESHAP, including, but not limited to, data collection, recordkeeping and reporting requirements.

If you have any questions, please do not hesitate to contact me or Mr. Ray Chalmers, the EPA Region III contact for Boiler NESHAP issues at 215-814-2061 or chalmers.ray@epa.gov.

Sincerely,

Nikos Singelis, Acting Director
Air Protection Division

Enclosure

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cc: J. Adkins, WV DEP
R. Chakrabarty, WV DEP
J. Mentink, Chemours Washington Works

Enclosure

Chemours reports that it operates a facility located in Washington, WV that has five coal-fired stoker boilers which are subject to the requirements of the federal National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler NESHAP), 40 CFR Part 63, Subpart DDDDD.

Chemours reports that its five coal-fired boilers are designated as #2 (P02), #3 (P03), #4 (P04), #5 (P05), and #6 (P06). Chemours states that these boilers are rated at 64.2, 94, 125, 181, and 241 million BTU/Hour, respectively, and that they were installed in the 1940s, 1950s, and 1960s. Chemours reports that the boilers are equipped with baghouses to control their particulate matter (PM) emissions.

Chemours is required, under the Boiler NESHAP's provisions applicable to its five coal-fired boilers, to operate the boilers in compliance with PM emission limits at most times, and to operate the boilers in accordance with work practice standards during boiler startup periods. The Boiler NESHAP's startup requirements as applicable to Chemours' boilers are specified in the NESHAP at Table 3, item #5(c)(2). These requirements indicate that "once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all the applicable control devices so as to comply with the applicable emission limits within 4 hours of start of supplying useful thermal energy. You must engage and operate PM control within one hour of first feeding fuels that are not clean fuels."

On January 6, 2016, Chemours requested approval of a variance from the work practice standards that are applicable to its boilers. Chemours had sent its request to the West Virginia Department of Environmental Protection (WV DEP). The Boiler NESHAP allows a delegated permit authority to approve a startup variance when sources can show them to be justified. However, the WV DEP, while it has been delegated the authority to implement and enforce most provisions of the Boiler NESHAP, has not yet been delegated the authority to act on requests for Boiler NESHAP startup variances. Accordingly, the WV DEP asked EPA to respond to Chemours' request for such a startup variance.

Chemours' specific request was for approval of 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 on-line."

As Chemours indicated by quoting the Boiler NESHAP's relevant provision in its request, the Boiler NESHAP provides at 40 CFR 63.7555(d)(13) that "If you choose to use paragraph (2) of the definition of "startup" in §63.7575 and you find that you are unable to safely engage and operate your PM control(s) within 1 hour of first firing of non-clean fuels, you may choose to rely on paragraph (1) of definition of "startup" in §63.7575 or you may submit to the delegated permitting authority a request for a variance requirement, as described below...."

The Boiler NESHAP's specified requirements for obtaining a variance include, in summary: 1) demonstrating that engaging the PM control(s) within one hour would cause a "documented manufacturer identified safety issue;" 2) identifying with specificity the details of the manufacturer's statement of concern; 3) demonstrating that the PM control(s) are adequately designed and sized to meet the applicable PM emissions limit; 4) demonstrating that manufacturer recommended procedures will be

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used to alleviate or prevent the identified safety issue; and, 5) demonstrating that clean fuel will be used during boiler startups to the maximum extent possible.

In its original January 7, 2016 submittal, and in its letters to EPA dated January 28, February 15 and February 25 providing supplementary information requested by EPA, Chemours addressed the specified requirements for obtaining a variance. In its letter to EPA dated January 28, 2016, Chemours confirmed a "documented manufacturer-identified safety issue." Chemours provided a written confirmation from Southern Environmental, Inc., the supplier of its baghouses, that "[i]ntroducing flue gas to the bags prior to stable boiler operation and/or with gas temperatures below dewpoint, can cause the bags to become blinded, restricting flue gas flow and risking a loss of draft in the boiler which could endanger personnel and equipment." Southern Environmental, Inc. included this statement in a modified version of its recommended startup procedures.

In its January 28, 2016 letter, Chemours also explained that if the bags were blinded the combustion chambers would then be pressurized, resulting in hot gases being emitted "into the immediate work environment of the boiler operators." Chemours further explained that the hot gases could also be forced back to the coal feed bunker, which could "light the coal bunker on fire...."

In its February 15, 2016 letter, Chemours discussed the startup-related safety issues further; discussed an actual back pressure event that had occurred when its baghouse bypass valve had been closed too soon; described revisions it had made to its startup procedures to reduce the possibility that such an event would occur again; and, also discussed the time required to properly implement its startup procedures.

In its February 25, 2016 submittal, Chemours addressed the requirement that it demonstrate that its PM controls are adequately designed and sized. Chemours did so by providing stack test results which indicate that the PM emissions from its coal-fired boilers are, after control by its baghouses, below the Boiler NESHAP's PM emissions limit.

In its initial submittal of January 7, 2016, Chemours discussed manufacturer-recommended startup procedures. Chemours provided as enclosures three exhibits. These include: 1) the relevant section of a "training manual prepared by the boiler manufacturer" that details recommended boiler startup procedures; 2) a vendor supplied "Baghouse Process Flow and Operational Descriptions" document; and, 3) a copy of the "current startup procedures for the affected boilers."

In its initial January 7, 2016 submittal, Chemours also reported that it meets the requirement for use of clean fuel during boiler startups. Chemours stated that "[i]nitial ignition of the coal bed is done by using absorbent material as a 'wick' and using kerosene as the accelerant, or fuel, to provide the heat for igniting the coal."

The Boiler NESHAP specifies in Table 3, #5 that kerosene is a clean fuel. EPA has confirmed that use of a clean fuel such as kerosene to initially ignite a bed of coal in a boiler meets the requirements for use of a clean fuel during boiler startups. This confirmation can be found in the Boiler MACT Q&A document posted on EPA's website, at Q&A #58.

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Based on Chemours' submittals as discussed above, EPA finds that Chemours meets the Boiler NESHAP's requirements for approval of a startup variance. EPA has further determined that Chemours specific 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 on-line," is approvable if one condition is established.

EPA notes that in its variance request Chemours is seeking the minimum extension of time needed to engage its PM controls after startup in order to diminish the potential for any safety issues. EPA believes it is possible that Chemours may find that during some boiler startups conditions are such that Chemours could bring its PM controls on-line in a shorter amount of time then the 4 hour timeframe after the start of fresh fuel feed that it requested.

EPA has therefore concluded that if Chemours should experience conditions during a particular startup which would allow Chemours to engage its PM controls in a shorter amount of time then the 4 hour timeframe after the start of fresh fuel feed that it requested, then Chemours should engage its PM controls as expeditiously as is safely possible during that startup, despite the 4 hour timeframe that it requested.

Accordingly, EPA is approving Chemours' request for a variance allowing Chemours to wait to bring its PM controls on-line "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 on-line," with the one condition that if Chemours should experience conditions during a particular boiler startup which would allow Chemours to engage its PM controls in a shorter amount of time than the 4 hour timeframe it requested, then Chemours should engage its PM controls as expeditiously as is safely possible during that startup.

Chemours must continue to meet the ongoing requirements for approval of the variance, which include: 1) complying with the Boiler NESHAP as required for sources relying on paragraph (2) of the definition of "startup" (with the exception of requirements for which it requested a variance); 2) using manufacturer recommended procedures to alleviate or prevent the identified safety issue; and, 3) using clean fuel during boiler startups to the maximum extent possible when igniting the coal bed in its boilers.

EPA notes that the Boiler NESHAP specifies at 40 CFR 63.7555(d)(13)(iv) that sources that qualify for variances from the Boiler NESHAP's work practice requirements pertaining to PM control during boiler startups are still required to continue to comply with all other work practice requirements specified in the Boiler NESHAP, including, but not limited to, data collection, recordkeeping and reporting requirements.