West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

E.I. du Pont de Nemours and Company
Washington Works
Power and Service Support (Part 10 of 14)
R30-10700001-2012

John A. Benedict
Director

Issued: April 17, 2012 • Effective: May 1, 2012
Expiration: April 17, 2017 • Renewal Application Due: October17, 2016

Permit Number: **R30-10700001-2012**

Permittee: **E. I. du Pont de Nemours and Company**

Facility Name: **Washington Works**

Business Unit: **Power and Service Support (Part 10 of 14)**

Mailing Address: **P.O. Box 1217, 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
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

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

1.1 Emission Unit Table

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
Boilers, Coal Handling, and Ash Handling					
475	P101C 2-Stage Mechanical Dust Collector	P01	No. 1 Boiler (Coal Fired, Spreader-Stoker)	64.2 MMBtu/hr	1947
475	P102C Single Stage Mechanical Dust Collector, Baghouse	P02	No. 2 Boiler (Coal Fired, Spreader-Stoker)	64.2 MMBtu/hr	1947
476	P103C Single Stage Mechanical Dust Collector, Baghouse	P03	No. 3 Boiler (Coal Fired, Spreader-Stoker)	94 MMBtu/hr	1957
	P104C Single Stage Mechanical Dust Collector, Baghouse	P04	No. 4 Boiler (Coal Fired, Spreader Stoker)	125 MMBtu/hr	1959
477	P105C Single Stage Mechanical Dust Collector, Baghouse	P05	No. 5 Boiler (Coal Fired, Spreader-Stoker)	181 MMBtu/hr	1963
	P106C Single Stage Mechanical Dust Collector, Baghouse	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

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
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
	Enclosed Building	P118E	Boiler Coal Bunker Discharge Area	#1 – 100 Tons #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

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
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

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
480	P216-5C Dust Collector	P216-5	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
P120	None	P120	Emergency Generator – ICE	40 HP LP	1999
P121	None	P121	Emergency Fire Pump	270 HP diesel	1969
P122	None	P122	Emergency Fire Pump	288 HP diesel	1983
P123	None	P123	Emergency Fire Pump	288 HP diesel	1986
~~P999~~	~~None~~	~~P999~~	~~Ash storage Pile~~	~~8000 tons~~	~~2009~~

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 – 2617E	11/30/2010
~~R13-2654~~	~~01/30/2007~~
R13-2654B	01/11/2013

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.

2.2. Acronyms

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

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:

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

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:

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

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 45CSR15]

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 Reserved.

3.1.10. 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, R13-2617, 4.1.1.]**

3.1.11. 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, R13-2617, 4.1.2.]**

3.1.11.1. 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, R13-2617, 4.1.2.1. and 45CSR§21-40.3.a.1. State-Enforceable only]**

3.1.11.2. 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, R13-2617, 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, R13-2617, 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 3.1.11.1. of this permit. **[45CSR13, R13-2617, 4.1.2.2.b.]**

3.1.11.3. 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 3.1.11.2. of this permit. **[45CSR13, R13-2617, 4.1.2.3. and 45CSR§21-40.3.c. State-Enforceable only]**

3.1.11.4. 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, R13-2617, 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, R13-2617, 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, R13-2617, 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 3.1.11.1. of this permit. **[45CSR13, R13-2617, 4.1.2.4.c.]**

3.1.11.5. 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 3.1.11.1. 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 3.1.11.1. of this permit. **[45CSR13, R13-2617, 4.1.2.5.]**

3.1.11.6 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, R13-2617, 4.1.2.6.]**

3.1.12. 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: **[45CSR13, R13-2617, 4.1.3.]**

3.1.12.1. 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, R13-2617, 4.1.3.1. and 45CSR§27-3.1. State-Enforceable only]**

3.1.12.2. 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, R13-2617, 4.1.3.2. and 45CSR§27-4.1. State-Enforceable only]**

3.1.13. 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 3.1.12. of this permit.
[45CSR13, R13-2617, 4.1.4. and 45CSR§27-3.1. State-Enforceable only]

3.1.14. a. **40 C.F.R. 63, Subpart DDDDD.** The Coal Fired & Natural Gas Boilers [Emission Unit ID No.-P01-P06 & P08] and shall comply with all applicable requirements for existing affected sources, pursuant to 40 C.F.R. 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" no later than the existing source compliance date of March 21, 2014, or as amended by US EPA.
[40 C.F.R. 63, Subpart DDDDD]

b. If required to submit a Notification of Compliance Status (NOCS) pursuant to 40 C.F.R. 63, Subpart DDDDD, the permittee shall also submit a complete application for significant modification to the Title V permit to incorporate the specific requirements of the rule no later than the maximum time allowed for the NOCS submittal in 40 C.F.R.§63.7545(e).

If requested, this Title V permitting deadline may be changed upon written approval by the Director. The permittee shall request the change in writing at least 30 days prior to the application due date.
[40 C.F.R. 63, Subpart DDDDD, 45CSR§30-6.5.b.]

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, R13-2617, 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, R13-2617, 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, R13-2617, 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, R13-2617, 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, R13-2617, 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, R13-2617, 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, R13-2617, 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 45CSR27-10. and set forth in the affected 45CSR13 permits as identified in Appendix D of this permit.
[45CSR13, R13-2617, 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.
[45CSR34; 40 C.F.R. §63.7881(c)]

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 certification to the USEPA as required in 3.5.5 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, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

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 annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[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.
[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, R13-2617, 4.5.1.]

3.6. Compliance Plan

3.6.1. NA

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. 1, 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. 1, 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. 1, 2, 3, 4, 5, and 6 Boilers were constructed prior to the June 19, 1984 applicability date and Nos. 1, 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 DuPont 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.

4.0. Requirements for Nos.1, 2, 3, 4, 5, and 6 Boilers, Coal Handling, and Ash Handling

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. *(emission points 475, 476, and 477)* **[45CSR§§2-3.1 and 9.1]**

4.1.2. Particulate matter emissions from Boiler Nos. 1, 2, 3, 4, 5, and 6 shall not exceed 69.25 lb/hr. The allowable emission rates for individual stacks are specified in the approved monitoring plan (See Appendix A). *(emission points 475, 476, and 477)* **[45CSR§§2-4.1.c and 4.2; 45CSR§2A-4.2]**

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. 1, 2, 3, 4, 5, and 6 shall not exceed 2,385.14 lb/hr. The allowable emission rates for individual stacks are specified in the approved monitoring plan (See Appendix B). *(emission points 475, 476, and 477)* **[45CSR§§10-3.1.e and 3.4; 45CSR§10A-4.1]**

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§§7-4.3, 4.4] [Sorbent Silos; Emission Point I.D. 493]

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. Reserved

4.2.3. 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]**

4.2.4 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 (P130 & P131) 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 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:

4.2.5 Daily Visible Emissions (VEs) monitoring shall be conducted at emission point (ID 475) by trained personnel using the practices of EPA Method 9. The observer shall be a Method 9 certified observer and follow EPA Method 9 procedures. The observation period shall be on a six minute basis. An excursion is defined as any opacity greater than 10%.
If the excursions exceeds 5% (of the total days operated for the boiler during a 6 months semiannual reporting period), a QIP must be addressed.
[40C.F.R§§64.3(a), 64.3(b), 64.6(c)(2), 64.8(a), 45CSR§30-5.1.c] [**Equipment ID (P01)]**

4.2.6 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.

The 40 C.F.R. 64 Compliance Assurance monitoring for P02 and P03 shall be implemented no later than 180 days from the date of issuance of R30-10700001-2012 (Part 10 of 14).

[40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2), 64.8(a), 64.4(e), 45CSR§30-5.1.c][Equipment ID(P02, P03)]

4.2.7 **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, Equipment ID (P01, P02, P03)]

4.2.8 **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, Equipment ID (P01, P02, P03)]

4.2.9 **Quality Improvement Plan (QIP)**

a. Based on the results of a determination made under permit condition 4.2.5 or 4.2.6 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, Equipment ID (P01, P02, P03)]

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 476 and 477 and the resulting testing cycles are as follows:

Emission Point	Emission Unit	Last Test Date	Testing Cycle
476	No. 4 Boiler	9/28/2010	Cycle 3
477	No. 5 Boiler	9/29/2011	Cycle 3
	No. 6 Boiler	12/01/09	Cycle 3

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. 1 Boiler	12/03/09	Once/year
	No. 2 Boiler	9/28/2011	Once/year
476	No. 3 Boiler	9/1/2011	Once/year
	No. 4 Boiler	8/31/2011	Once/year
477	No. 5 Boiler	7/13/2011	Once/year
	No. 6 Boiler	7/14/2011	Once/year

[1]A performance test for No. 1 Boiler was not conducted in 2004. The boiler experienced significant operational problems prior to the scheduled test that have not been resolved sufficiently to allow performance of the test.

[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]**

CAM Testing Requirements:

4.3.5 In order to assure the indicator for (DeltaP) pressure drop across the P02 and P03 Baghouses, and the visible emission from P01 remains appropriate for demonstrating compliance with the lb/hr PM limit (specified in condition 4.1.2 and Appendix A), Dupont, within 12 months of effective date of TitleV permit or commencing operations (startup), shall conduct weight emission testing in accordance with 45CSR2A. During the testing event Dupont shall record all relevant operating variables including opacity and baghouse pressure drop readings. Dupont needs to submit the test results in accordance with 3.3.1 and these results should also address compliance with 4.2.5 and 42.6.
[40 C.F.R. §64.6(b), 45CSR§30-5.1.c, Equipment ID (P01, P02, P03)]

4.3.6 DuPont will perform periodic weight emission testing on P01, 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 45 CSR 2 Appendix
[40 C.F.R. §64.6(b), 45CSR§30-5.1.c, Equipment ID (P01, P02, P03)]

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 4.2.2 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 4.2.4 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]**

CAM Recordkeeping Requirements:

4.4.7 Daily Visible Emissions (VEs) monitoring by certified personnel conducted in accordance with Condition 4.2.5 shall be documented and records maintained per Condition 3.4.2. If the boiler is out of service, the monitoring record of observation can be satisfied by noting "out of service" (OS). The records shall be maintained per EPA Method 9 and shall include, at a minimum, the date and time, the results of the observation, and the name of the observer.
[40C.F.R.§64.9(b)(1) , 45CSR§30-5.1.c] [**Equipment ID (P01)]**

4.4.8. 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 4.2.6.

b. Records of the annual inspections conducted on the differential pressure transmitters (including pressure gauge and reader) conducted in accordance with Condition 4.2.6. Records shall note any maintenance performed on these devices.

c. For each excursion as specified in Condition 4.2.6, 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.

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

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, Equipment ID (P01, P02, P03)]]

4.6. Compliance Plan

4.6.1. None

5.0. No. 8 Boiler Requirements

5.1. Limits and Standards

5.1.1. The following table provides information on the boiler authorized to operate by this permit at the DuPont 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§14-7.1]**

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§14-7.3]**

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§14-18.1]**

(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§14-18.1(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§14-18.1(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§14-18.3]**

[45CSR14, R14-14, B.5; 45CSR§§14-7.1, 7.3, 18.1, and 18.3]

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]**

5.2 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 a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system. **[45CSR16; 40 C.F.R. §60.48b(b)(1)]**

b. The continuous monitoring system shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system 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(b). At least 2 data points must be used to calculate each 1-hour average. **[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 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)]**

e. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7a, 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 nitrogen oxides 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), 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 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 each calendar quarter. 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)]**

b. The owner or operator of an affected facility subject to the nitrogen oxides 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 nitrogen oxides 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 nitrogen oxides 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 nitrogen oxides emission rates are in excess of the nitrogen oxides 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 continuous monitoring system. **[45CSR16; 40 C.F.R. §60.49b(g)(8)]**

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system 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. **[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.]**

5.5. 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)]**

5.6. Compliance Plan

5.6.1. NA

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. *(474 and 480)* **[45CSR§§7-3.1 and 3.2]**

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 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 NA

6.6. Compliance Plan

6.6.1. NA

7.0 B12 Parts Washer (P302) 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]

7.2. Monitoring Requirements

7.2.1. NA

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.]**

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.]

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. NA

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	~~493.5~~ 162.97	~~656.9~~ 625.58
		Formaldehyde	~~20.13~~ 7.05	~~24.94~~ 24.77
		Total HAPs	~~360.2~~ 23.14	~~402.4~~ 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
~~Dimethyl Formamide~~ Toluene	~~68122~~ 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. Formaldehyde concentration at the inlet of the Wastewater Treatment Plant shall not exceed 375 parts per million, based on a 30-day rolling average.~~
~~**[45CSR13, R13-2654, 5.1.4.]**~~

8.1.~~5~~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 R13-2617~~E~~, and any amendments thereto.
[45CSR13, R13-2654, 5.1.~~5~~4.]

8.1.~~6~~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 R13-2617~~E~~, 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~~2. 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 ~~formaldehyde and~~ methanol concentration~~s~~.
[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 ~~total organic compounds~~ methanol. The daily 30-day rolling average concentration will be used to calculate emissions from the sources identified in Table 8.4.~~5~~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. NA

8.6. Compliance Plan

8.6.1. NA

9.0 Emergency Engines-40 C.F.R. 63, Subpart ZZZZ [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" by May 3, 2013.

a. The permittee shall meet the following operating requirements:

Table 2cto 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…
Emergency stationary CI RICE and black start stationary CI RICE.[1]	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; 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]

[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) 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, Operating Limitations, Work Practices, and Management Practices

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. §§63.6595(a)(1), 63.6602, 63.6605, 63.6640(a), 63.6645(a)(5), 63.6665, Table 2c and Table6]

9.2 Monitoring Requirements

9.2.1 For Emission Unit IDs P121, P122, P123 and P120 the permittee shall comply with the Monitoring, Installation, Collection, Operation and Maintenance Requirements of 40 C.F.R. §§ 63.6625(e), (f) , (h), and (i).
[40 C.F.R. §63.6625]

9.3 Testing Requirements

None

9.4 Recordkeeping Requirements

9.4.1 For Emission Unit IDs P121, P122, P123 and P120, the permittee shall comply with recordkeeping requirements of 40 C.F.R. §§63.6655(a), (b), (d), (e), and (f).
[40 C.F.R. §63.6655]

9.5 Reporting Requirements

9.5.1. See footnote 1 of Table 2c

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)]**

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)]**

9.5.4. The permittee shall operate the emergency stationary RICE according to the requirements in 9.5.4.a through 9.5.4.c. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 9.5.4.a through 9.5.4.c of this section, is

prohibited. If you do not operate the engine according to the requirements in paragraphs 9.5.4.a through 9.5.4.c of this section, the engine will not be considered an emergency engine under 40 C.F.R. 63, Subpart ZZZZ and will need to meet all requirements for non-emergency engines.

a. There is no time limit on the use of emergency stationary RICE in emergency situations.

b. You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. 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 year.

c. You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving 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; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph 9.5.4.c, as long as the power provided by the financial arrangement is limited to emergency power.

[40 C.F.R. §63.6640(f)(1)]

9.6 Compliance Plan

9.6.1 None

Appendix A

45CSR2/2A Monitoring and Recordkeeping Plan
Revised: November 7, 2008
Approved: December 9, 2008

E. I. du Pont de Nemours and Company
Washington Works
Mail: P.O. Box 1217
Washington, WV 26181-1217

November 7, 2008

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. John A. Benedict, Director
Division of Air Quality
WV Department of Environmental Protection
601 57th Street S.E.
Charleston, WV 25304

RE: Regulation 45 CSR 2A Source Registration and Testing, Monitoring, Recordkeeping, and Reporting Plan Revision
Ref: Regulation 45 CSR 2A Source Registration and Testing, Monitoring, Recordkeeping, and Reporting Plans Revision, Letter Dated February 2, 2005

Dear Mr. Benedict:

With this letter, DuPont hereby provides an updated version of the compliance plan for the Power House Area of the facility to replace the version supplied with the above referenced letter. The update is the result of discussions with Todd Shrewsbury and James Robertson of your office regarding the proper operating parameters for the recently installed bag houses for Boiler No.'s 4, 5, and 6.

Should you have any questions regarding this matter, please call me on (304) 863-4271.

Very truly yours,

D. F. Altman
Senior Environmental Control Consultant
Washington Works

CC: Todd Shrewsbury
Engineer
WV-DAQ

James Robertson
Engineer
WV-DAQ

E. I. du Pont de Nemours and Company
Shipping: 8480 DuPont Rd
Washington, WV 26181

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

45 CSR 2/2A Monitoring and Recordkeeping Plan (Non-COMS)
Revised November 7, 2008

1. Facility Information

Facility Name: DuPont 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, DuPont manufactures plastics including nylon, polyvinyl butyryl sheeting, acrylic and polyacetal resins, and fluorocarbon polymers. Other manufacturing activities at the site include plastics compounding and production of nylon fibers and monofilament, formaldehyde, and fluorocarbon monomers and telomers.

Using six 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) and fuel type for each boiler is:

Boiler #1	64.2 MM Btu/hr	coal-fired stoker
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 six 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). Boilers #1 and #2 share a common stack (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 six coal-fired boilers receive coal from a common supply. DuPont 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 screener, 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 while Boiler #1 has dual-stage dust collection.

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. Boiler #1 is served by two-stage mechanical dust collectors rather than a combination of mechanical dust collectors and bag filters.

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 #1, #2, and #3 have design heat inputs of 64.2, 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 #1, #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 #1, #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

In accordance with 45 CSR 2 and 2A, DuPont Washington Works proposes the following plan that includes visible emission testing, periodic weight emission testing, monitoring, record keeping and reporting. Baseline weight emission testing for these units has been previously conducted as noted below.

5.a Visual Emission Testing

Per the provisions of 45 CSR 2A, 6.3.a.1, EPA Method 9 readings must be made at least once per month for each stack. As noted earlier, Boilers #1, #2, and #3 are exempted from this requirement per 45 CSR 2A, 3.1.b. Since Boiler #3 shares a stack with Boiler #4, its operation is captured under the visual monitoring for Stack #2.

Internal DuPont procedures specify taking daily opacity measurements for each stack when it is in service. Opacity monitoring for the effected units, per the requirements of 45 CSR 2A, 6.3 are performed on a daily basis by certified personnel in accordance with EPA Method 9.

Based on the date and time of the opacity reading, information from log sheets or the process control computer system is available to review the corresponding steam production, bypass valve position, bag house pressure drop, and other selected operating variables if an excursion is noted.

5.b Baseline Weight Emission Testing (45 CSR 2A, 5.2)

Using a contract testing firm, DuPont performed baseline particulate weight emission testing on the coal-fired boilers (Boilers #1, #2, #3, #4, #5, and #6) within 12 months of the effective date for 45 CSR 2A. Testing was completed in 2002. The test protocol followed the methods described in 45 CSR 2 Appendix "Compliance Test Procedures for 45CSR2" or other equivalent EPA-approved methods. The test protocol for baseline testing on all six boilers was submitted to DAQ in November 2001 and verbally approved by Laura Crowder, WVDAQ, on December 10, 2001.

The boiler discharges were sampled following EPA Methods 1-5 to determine the mass emission rate of particulate. The Method 5 particulate train was modified to conduct the SO_2 analysis simultaneously with the particulate analysis by replacing the impinger water with a 3% peroxide solution. An outside laboratory analyzed the impinger solution for particulate and SO_2 content.

In conjunction with the baseline weight emission testing, the coal was characterized for its heat, sulfur, volatile, fixed carbon, ash, and moisture contents. The selected operating variables for each boiler (i.e., steam flow, overfire air header flow, flue gas oxygen content, and flue gas temperature) were recorded on the process control 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, which satisfied the requirements of 45 CSR 2, 5.1, 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.

Based on the results of the baseline emission testing, DuPont Washington Works revised the original registered stack emission limits for the Power House boilers. Attachment No. 1 – Table 4, Registration of Alternative Stack Emission Rates, indicates the registered stack limits that were approved by the WV DAQ on December 13, 2002. Additional detail of the results of the baseline testing is also referenced in Table 1 of this plan.

5.c Periodic Weight Emission Testing

DuPont 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.

5.d 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, screener, bucket elevators, and tripper floor transfer belt.

Stockpiling Ash – Ash is not stockpiled outdoors. Bottom ash and flyash 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.

5.e Start-Ups, Shutdowns, and Malfunctions

The visible emission standards per 45 CSR 2 apply 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, DuPont 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:

  - a detailed explanation of the factors involved in or causes of the malfunction,
  - starting and ending times of the period of excess emissions,

- an estimate of the mass discharged during the malfunction,
- the maximum opacity measured or observed during the malfunction,
- immediate remedial actions taken to correct or mitigate the effects of the malfunction, and
- a schedule for implementing corrective actions that will prevent a recurrence of the malfunction

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

5.f Operating Parameters

Per 45 CSR 2A, 6.3.a.2, for affected units (Boilers #4, #5, and #6), covered by the non-COM based monitoring plan, the bag house bypass valve position and the bag house pressure drop are the operating parameters which are most relevant to the control of particulate emissions. These parameters were chosen due to the high filter efficiency of the bag houses and their ability to remove particulate emissions regardless of any variation of all other boiler operating variables. The bypass valve position and the bag house pressure drop are continuously monitored during normal boiler and bag house operation. The bypass valve is normally in the closed position during boiler operation. Bag house pressure drop is typically operated between 2" and 5" of water column. There is an alarm that is activated prior to the bag house pressure reaching 6". A pressure drop below 1" water column activates an alarm that requires the operator to investigate for abnormal conditions around the bag house creating the low pressure drop and follow-up with the appropriate actions. A low pressure drop across the bag house may be an indication that the bag house has failed filter bags, the bypass valve may not be completely closed, or another type of short circuit around the bag house exists. The Power & Services boiler and bag house operating procedures address actions that the boiler operators take to address these alarm conditions. An excursion of the operating parameter in this case is defined as a bag house bypass valve open to any position other than closed or a pressure drop reading below 1" water column while the boiler is in operation.

5.g Response Plans

Per 45 CSR 2A, 6.3.a.8 addressing affected units covered by a non-COM based monitoring plan, Power & Services boiler operating procedures address proper boiler and bag house filter operation, normal shutdown sequence, response to abnormal operating conditions, and emergency shutdown sequences.

For excursions exceeding one (1) hour per 45 CSR 2A, 6.3.a.8A, the operations group performs EPA Method 9 readings for a minimum of six minutes for each hour of the excursion. The hourly readings are suspended upon achieving four consecutive satisfactory 6-minute readings in one hour and the operating parameter(s) are back in limits or when light conditions fail. If the excursion is due to a pressure drop reading of less than 1" water column, and the investigation shows no abnormal conditions with the

boiler or baghouse, and if the initial EPA Method 9 reading show compliance with 45 CSR 2 section 3, then the operations group shall document the boiler steam rate and the time at which the low pressure condition clears. The event shall be reported as an excursion, but shall not be considered to be an exceedance.

5.h Variances

Per 45 CSR 2, 10.1, if there is an unavoidable shortage of fuel having the characteristics or specifications needed to comply with the visible emissions standards, or if there is an emergency situation or condition that creates a threat to public safety or welfare, the Director may grant an exception to the visible emission standards for a period not to exceed 15 days. The exception will limit visible emissions to a six-minute maximum of not more than 30% opacity. The operator will also have to demonstrate compliance with the particulate weight emission standards even though the opacity limits have been relaxed for the period of the variance. If this situation arises, DuPont will contact the Director to request a variance to the Reg. 2/2A provisions.

6. 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 #1, #2, #3, #4, #5, and #6 (per section 7.1.a.4) –
Coal – 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) –
Natural Gas – date and time of startup and shutdown, hours of operation, and 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, strip chart recordings for continuous monitoring instrumentation, shift logs, daily emission observation forms, stack emission 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.

7. Reporting

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

- quarterly preparation of a "Monitoring Summary Report" and
- 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
- total time in startup and shutdown
- duration of excess emissions
- date and time of startup and shutdown of each boiler
- calculated amount of coal consumed on a daily basis
- ash and BTU content for each coal shipment

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 Boilers
Emissions Summary

TYPE C BOILER INFORMATION					STACK INFORMATION					
Boiler No.	Fuel Source	DHI (mmBtu/hr)	Baseline Testing Particulate Emissions (lb/hr)	Baseline Testing Date	Stack	DHI Per Stack (mmBtu/hr)	% of Total Emissions	Calculated Allowable Particulate Emissions (lb/hr)	Baseline Testing Particulate Emissions (lb/hr)	Registered Allocated Particulate Emissions Limits (lb/hr)
1	coal	64.2	17.1	6/18/2002	S1	128.4	16.7%	11.56	22.3	23
2	coal	64.2	5.2	11/13-14/02						
3	coal	94	13.9	6/4-5/02	S2	219	28.5%	19.71	15.17	27.25
4	coal	125	1.27	8/28-29/02						
5	coal	181	8.12	12/13/2001	S3	422	54.8%	37.98	13.95	19
6	coal	241	5.83	9/5/2002						
total coal-fired DHI		769.4				769.4	100%			
total coal-fired particulates, lb/hr			51.42				69.247	69.25	51.42	69.25

TYPE B BOILER INFORMATION					STACK INFORMATION					
Boiler No.	Fuel Source	DHI (mmBtu/hr)	Baseline Testing Particulate Emissions (lb/hr)	Baseline Testing Date	Stack	DHI Per Stack (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	nat gas	181	N/A	N/A	S4	181	100%	16.29	N/A	1.38*

* Permitted limit per Permit R14-14

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Attachment 1

Supporting Calculation Documentation (Power and Services Boilers) and Reg. 2A Appendix B Site Registration Forms

Power and Services Boilers
Calculations of Allowable Emission Rates

1. Reg. 2A Registration Form, Table 2 – total design heat input for all Power & Services "Type 'b'" units is 327.8 mm Btu/hr. Factor is 0.09 lb particulate/mm Btu.
   Weight emission rate is: 327.8 x 0.09 = 29.502 lb particulate per hour

2. Reg. 2A Registration Form, Table 2 – total design heat input for all "Type 'c'" units is 769.4 mm Btu/hr.

   From Table 45-2, the allowable particulate emissions for 600 mm Btu/hr is 54 lb/hr and the allowable particulate emissions for 3333 mm Btu/hr is 300 lb/hr. Linearly interpolate between 600 and 3333 mm Btu/hr to determine the corresponding particulate emission rate for 769.4 mm Btu/hr:

   $$\frac{769.4 - 600}{3333 - 600} = \frac{x - 54}{300 - 54}$$

   $$\frac{(769.4 - 600) \times (300 - 54)}{(3333 - 600)} = (x - 54)$$

   $$\frac{(769.4 - 600) \times (300 - 54)}{(3333 - 600)} + 54 = x$$

   x = 69.247 lb /hr total particulate emissions from the coal-fired boilers

3. Reg. 2A Registration Form, Table 3 – proportioning the allowable particulate emissions amongst the three stacks serving the coal fired boilers:
   - Stack 1: (64.2 + 64.2 mm Btu/hr)/769.4 mm Btu/hr = 0.16688
     0.16688 x 69.247 lb/hr = 11.556 lb/hr
   - Stack 2: (94 + 125 mm Btu/hr)/769.4 mm Btu/hr = 0.284637
     0.284637 x 69.247 lb/hr = 19.7103 lb/hr
   - Stack 3: (181 + 241 mm Btu/hr)/769.4 mm Btu/hr = 0.54848
     0.54848 x 69.247 = 37.9805 lb/hr
     check: 11.556 + 19.7103 + 37.9805 = 69.247 OK

   Reg. 2A Registration Form, Table 3 – the allowable particulate emissions for Stack 4 serving Boiler #8:
   - Stack 4: 181 mm Btu/hr / 181 mm Btu/hr = 1.000
   - 1.000 x 16.29 lb/hr = 16.29 lb/hr particulate through Stack 4 for Boiler #8.
   - Registered emission rate per R14-14 = 1.38 lb/hr

4. Reg. 2A Registration Form, Table 4 –stack emission rates:

Stack	Calculated Allowable Rates (lb/hr)	Expected Rate per Baseline Testing (lb/hr)	Registered Stack Rates (lb/hr)
1	11.556	22.3	23
2	19.7103	15.17	27.247
3	37.98	13.95	19
Total	69.2463	51.42	69.247

Site Reg. 2A Registration Forms

Sources: Power & Services Boilers; "D" Area CF Boiler; "Z" Area Vaporizers, "T" Area T1CD Furnace

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)
		P31	181	P01	64.2
		DOM	44	P02	64.2
		Z11	14	P03	94
		Z12	14	P04	125
		Z13	14	P05	181
		Z14	14	P06	241
		Z15	16		
		Z23	18		
		T1CD	12.8		
Sum of DHI for all Type 'a' units	0	Sum of DHI for all Type 'b' units	327.8	Sum of DHI for all Type 'c' units	769.4

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Site Reg. 2A Registration Forms

Sources: Power & Services Boilers; "D" CF Boiler; "Z" Area Vaporizers, "T" Area T1CD Furnace

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		0.05	0
Sum of DHI for all Type 'b' units	327.8	0.09	29.502
Sum of DHI for all Type 'c' units	769.4	N/A, look up lb/hr limit in 45CSR2, Table 45-2	69.247

[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.

Site Reg. 2A Registration Forms

Sources: Power & Services Boilers; "D" Area CF Boiler; "Z" Area Vaporizers, "T" Area T1CD 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 B) (mmBTU/hr)	(D) Wt. Emission Rate for all Similar Units (Table 2, Column D) (mmBTU/hr)	(E) Stack Emission Rate (lb/hr) [(B/C)*D=E]
475	128.4	769.4	69.247	11.556
476	219	769.4	69.247	19.7103
477	422	769.4	69.247	37.981
479	181	327.8	29.502	1.38
328	44	327.8	29.502	0.36
711	14	327.8	29.502	1.26
712	14	327.8	29.502	1.26
713	14	327.8	29.502	1.26
714	14	327.8	29.502	1.26
715	16	327.8	29.502	1.44
723	18	327.8	29.502	1.62
605	12.8	327.8	29.502	0.09
Stack Allowable Emission Rate (lb/hr)				79.177

Note: Sources P31(Stk # 479), DOM (Stk # 328), and T1CD (Stk # 605) have particuluate emission limits specified in Reg. 13 permits and these are reflected in Table 3 (E).

Site Reg. 2A Registration Forms

Sources: Power & Services Boilers 1-6
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 45CSR2, Subsection 4.2.

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)
475	P01/P02	23
476	P03/P04	27.25
477	P05/P06	19
Sum of Alternative Stack Emission Rates (lb/hr) [1]		69.25

[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.

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Appendix B

45CSR10/10A Monitoring and Recordkeeping Plan
Revised: January 21, 2002
Approved: April 4, 2005

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, DuPont 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 will perform the 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 will be conducted following the methods described in 40 CFR Part 60, Appendix A. The six boiler discharges 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. The test protocol will be submitted to WV DAQ for approval. Once approved, this protocol will be used for subsequent annual weight emission testing. Attachment 2 contains the test protocol for Boilers #1 - #6 that was submitted to DAQ on November 14, 2001. Verbal approval of this test protocol was received on December 10, 2001 from Ms. Rebecca Johnson, WV DAQ.

In conjunction with the baseline weight emission testing, the coal will be characterized for its heat, sulfur, volatile, fixed carbon, ash, and moisture content. The operating variables for each boiler (overfire air header pressure, flue gas oxygen content) will be recorded on the Vantage computer system and correlated to each specific test period. During testing, each boiler will be 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 will be 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 will used during the testing.

Based on the results of the baseline testing, the "Maximum Heat Rate Input" and "Maximum Steam Production" entries in Table 1 may be updated and submitted to WV DAQ as an amendment to this submittal.

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. After completing the baseline weight emission

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

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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. After completing the baseline weight emission

testing, DuPont will perform annual weight emission testing on the #1, #2, #3, #4, #5, and #6 boilers. The testing will occur within 12 months of completing the baseline testing and will coincide to the extent practicable with the Reg 2A testing frequencies. 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, DuPont 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 (overfire air header pressure, flue gas oxygen content) will be recorded on the Vantage computer system and correlated to each specific test period. During testing, each boiler will be operated at a rate greater than 80% of its design heat input.

If DuPont 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, DuPont 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 3 shows the calculations supporting columns 1 through 5 of Table 3.

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 show 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".

DuPont 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, DuPont 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, DuPont requests approval of all the following options:

Option 1: Working with a coal terminal, DuPont would arrange for blending of coal from its various suppliers. The coal purchased for DuPont 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, DuPont 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 included in the quarterly "Monitoring Summary" report described in section 5 below.

The logistics and implementation details for this option are under discussion with suppliers and coal terminal management. It is anticipated that this option could be fully implemented 30 days after approval of this plan.

Option 2: DuPont 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. The bunker for the #1 Boiler receives coal from the same source and via the same bucket elevators as the tripper floor transfer belt. However, when coal is directed to the bunker for the #1 Boiler, the feed to the tripper floor transfer belt is interrupted. Since the #1 Boiler represents less than 8.5% of the TDHI, the composite sample collected from the tripper floor transfer belt would be an accurate representation of the coal burned in the #1 Boiler.

DuPont 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, DuPont 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 (8 a.m.), 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 from the east and west sides of the coal pile 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 included in the quarterly "Monitoring Summary" report described in section 5 below.

Option 3: Alternatively, if DuPont 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, DuPont 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 included in the quarterly "Monitoring Summary" report described in section 5 below.

From approval of the plan, it would take 30 days to fully implement the logistics and details of this option.

Approval of the three options will provide operating flexibility, especially during the early stages of implementing this compliance and monitoring plan. As noted below in section 6, we will need some time to finalize arrangements with suppliers (coal, terminal(s), labs, equipment vendors) in order to fully implement this plan.

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). While during the early stages of plan implementation, a certified independent analytical lab will likely perform the sample preparation and analysis, DuPont requests the flexibility to get its on-site laboratory certified to perform this work. Factors driving such a decision could include cost, reliability, turnaround time for reports, difficulties in shipping samples, or accuracy.

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:

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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 9%. 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 six 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, DuPont will contact the Director to request a variance to the Reg 10/10A provisions. If an extension of the variance is required, DuPont will provide a corrective program.

4.e Records Management - DuPont 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 the Vantage computer 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. This record keeping process will continue while awaiting approval of this plan and, assuming the plan is approved, going forward. Records will be retained for 5 years in accordance with the requirements of 45 CSR 10A, 7.1.d.

Alternatively, if DuPont 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 – Beginning with the approval of this monitoring plan, DuPont will prepare quarterly "Monitoring Summary" and "Excursion and Monitoring Plan Performance" reports. The first report will cover the first quarter after WV DEP OAQ approval of this plan. As of the submittal date of this plan, approval of the plan and its activation are expected to occur in the third quarter of 2001; submittals will be postmarked no later than October 30, 2001. Subsequent 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.

6.Effective Date of the Plan /Implementation Schedule

45 CSR 10A, 6.5.a calls for the Director to approve the plan by August 31, 2001 or, if not approved by that date, approval may be presumed. By 45 CSR 10A, 6.5.b, the monitoring plan becomes effective upon approval. The current Regulation 10A plan was approved by the West Virginia Department of Air Quality on November 5, 2001. DuPont was granted the following implementation periods as part of the approved plan:

"The automated coal sampler for Option 2 is expected to be delivered to the site by the end of September 2001 and to be installed, commissioned, and started up the end of October 2001. Option 2 will require contract arrangements with the off-site laboratory, revisions to operating procedures, and training for four operating shifts and backup operators."

Delays in the shipment of the coal-sampling unit by the manufacturer postponed the installation of the unit. The unit has been received and installed, but is not fully commissioned for daily operation. The sampling unit is expected to be placed in daily operation during February 2002. Composite samples are currently being collected by manual and automated methods described in Option 2 while operator training and final commissioning of the sampling unit is completed. DuPont will notify DAQ in writing when the automated coal sampler is ready for routine operation as per the previously approved plan.

Upon approval of this plan, Options 1 and 3 will be held as contingencies that could be available for full implementation within 30 days of the decision to activate them. This time will be required in order to complete the necessary training, records system organization, arrangements with suppliers, and possible facility and/or procedure modifications associated with the implementation of either of these options.

Table 1

45 CSR 10A Monitoring and Recordkeeping Plan

Coal Blend Heat Content = 13618 Btu/lb

nit	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)
(B1)	475(S1)	64.2	3.1	199.02		56.46	58.92	61.60	64.19	64.2	64.2	64.2
2(B2)	475(S1)	64.2	3.1	199.02	398.04	56.46	58.92	61.60	64.19	64.2	64.2	64.2
3(B3)	476(S2)	94	3.1	291.4		82.67	86.27	90.19	93.99	94	94	94
4(B4)	476(S2)	125	3.1	387.5	678.9	109.94	114.72	119.93	124.99	125	125	125
5(B5)	477(S3)	181	3.1	561.1		159.19	166.11	173.66	180.98	181	181	181
6(B6)	477(S3)	241	3.1	747.1	1308.2	211.96	221.17	231.23	240.98	241	241	241
Init	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)
1(B1)	475(S1)					50.9	53.1	55.5	57.8	57.8	57.8	57.8
2(B2)	475(S1)					50.9	53.1	55.5	57.8	57.8	57.8	57.8
3(B3)	476(S2)					74.5	77.7	81.3	84.7	84.7	84.7	84.7
4(B4)	476(S2)					99.0	103.3	108.0	112.6	112.6	112.6	112.6
5(B5)	477(S3)					143.4	149.6	156.5	163.0	163.1	163.1	163.1
6(B6)	477(S3)					191.0	199.3	208.3	217.1	217.1	217.1	217.1
				coal-fired	total	609.6	636.1	665.0	693.1	693.2	693.2	693.2

Table 2

Reg 10/10A Applicability for Boilers 1-8

Citation	Requirement	Boiler 1 (P01)	Boiler 2 (P02)	Boiler 3 (P03)	Boiler 4 (P04)	Boiler 5 (P05)	Boiler 6 (P06	Boiler 7 (P15)	Boiler 8 (P31)
	fuel	coal	coal	coal	coal	coal	coal	alternate fuels	natural gas
	design heat input, mmBTU/hr	64.2	64.2	94	125	181	241	40	181
45 CSR 10, 2.8	def of fuel burning unit	Type 'c'	Type 'c'	Type 'c'	Type 'c'	Type 'c'	Type 'c'	Type 'b'	Type 'b'
45 CSR 10, 2.17	def of Priority Region	Priority II	Priority II	Priority II	Priority II	Priority II	Priority II	Priority II	Priority II
45 CSR 10, 3.1.e	wt emissions factor for SO2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	max SO2 emissions, lb SO2/hr	199.02	199.02	291.4	387.5	561.1	747.1		
45 CSR 10A, 3.1.b	exemption for burning nat gas, wood, or distillate oil							x	x
45 CSR 10A, 5.1.a	weight emission testing	petition	petition	petition	baseline by 3/5/2002	baseline by 3/5/2002	baseline by 3/5/2002	x	x
	annual weight emission test	petition	petition	petition	if coal blend >1.85% S	if coal blend >1.85% S	if coal blend >1.85% S		
	1/5 year weight emission test	petition	petition	petition	if coal blend <1.85% S	if coal blend <1.85% S	if coal blend <1.85% S		
45 CSR 10A, 6.1.c	CEMS, daily "as burned", or per shipment fuel analysis, see Table 3 "Triggers for Weight Emission Testing and CEMS or Daily 'As Burned' Analysis"	shipment for coal <2.25% S	shipment for coal <2.25% S	shipment for coal <2.25% S	shipment for coal <2.25% S	shipment for coal <2.25% S	shipment for coal <2.25% S		x

DuPont Washington Works
45 CSR 10/10A Monitoring and Recordkeeping Plan
Source: "D" Area Comparable Fuels Boiler

1. Facility Information

DuPont Washington Works

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

Shipping Address:
Route 892 South
Washington, WV 26181

Facility Contact:
Robert L. Ritchey, Sr. Environmental Control Consultant - (304) 863-4271

2. Facility Description

At the Washington Works site, DuPont manufactures plastics including nylon, polyvinyl butyryl sheeting, acrylic and polyacetal resins, and fluorocarbon polymers. Other manufacturing activities at the site include plastics compounding and production of nylon fibers and monofilament, formaldehyde, 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.

Presented below is the plan for the comparable fuel boiler which will be installed pursuant to permit R-1849A. It is expected to commence operation later this year. The boiler will replace the existing hazardous waste incinerator in the acetal resin production area at the DuPont Washington Works. The boiler will fire liquid waste which has been characterized as comparable fuel under the RCRA exemption found under 40 CFR 261.38. After startup and shakedown of the comparable fuel boiler, the hazardous waste incinerator will be de-commissioned. The hazardous waste incinerator is not a fuel burning unit subject to 45 CSR 2. The boiler will fire comparable fuel which has characteristics similar, but not identical, to distillate fuel oil. It will also co-fire auxiliary natural gas. Maximum design heat input is 44 mm BTU/hr. Please note that this plan only addresses sulfur oxides requirements imposed by regulation 45 CSR 10. Sulfur oxides limitations imposed upon this source by other regulations (e.g., 40 CFR Part 60, Subpart Dc) are addressed elsewhere.

3. Regulatory Applicability

Interpretive rule 45 CSR 10A applies to any fuel burning unit, manufacturing process source or combustion source subject to 45 CSR 10 with 3 enumerated exceptions. The comparable fuel boiler is a combustion unit which does not meet any of the 3 exceptions. The existing hazardous waste incinerator is not a fuel burning unit, manufacturing process source, or combustion source, and, therefore, is not subject to 45 CSR 10.

4. Allowable Emission Rates for Individual Stacks

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." Based on the comparable fuel boiler design heat input of 44 mm BTU/hr and its discharge through a dedicated stack, the allowable SO_2 emission rate is 136.4 lb/hr

5. Monitoring Plan

In accordance with 45 CSR 10A, 6.1.a, DuPont Washington Works proposes the following plan that includes sampling and analysis of the comparable fuel. Pursuant to 45 CSR 10A, 5.1a, no weight emission testing is required because the comparable fuel boiler emissions are less than 50% of the 3.1 lb/mm BTU Factor based upon the comparable fuel sulfur content of less than 100 ppm by weight.

DuPont will conduct sampling and analysis of the comparable fuel for sulfur content at least twice per week during initial startup for a period of 3 months. If these analyses show consistent compliance with the regulatory limit, then sampling and analysis will be conducted once per month for the next 6 months. If consistent compliance continues to be demonstrated, then sampling and analysis of the comparable fuel will be conducted semi-annually from that point on.

6. Recordkeeping and Reporting

In accordance with 45 CSR 10A, 7.1.a, records will be kept of the date and time of startup and shutdown, the quantity of fuel consumed on a daily basis and fuel sulfur analyses as set forth in Section 5 above. Records will be retained for 5 years in accordance with the requirements of 45 CSR 10A, 7.1.d.

In accordance with 45 CSR 10A, 7.2.b, DuPont will submit a "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" to the Director on a quarterly basis.

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Attachment 1
Reg 10A Appendix B – Registration

Sources: Power & Services Boilers; "D" Area CF Boiler

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)
		DOM	44	P01	64.2
				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	44	Sum of DHI for all Type 'c' units	769.4

Sources: Power & Services Boilers: "D" CF Boiler

Table 2 - Weight Emission Limits for Similar Units

(A)	(B) Total Design Heat Input (mmBTU/hr)	(C) Factor from 45CSR10, Section 8 (lb/mmBTU)	(D) Weight Emission Rate (lb/hr) [B * C = D]
Sum of DHI for all Type 2 units			0
Sum of DHI for all Type 3 units	44	[illegible]	136.4
Sum of DHI for all Type 4 units	769.4	[illegible]	2385.14

Sources: Power & Services Boilers; "D" Area CF Boiler

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)*(E)/(D)
475	P01/P02	128.4	769.4	2385.14	398.04
476	P03/P04	219	769.4	2385.14	678.9
477	P05/P06	422	769.4	2385.14	1308.2
328	DOM	44	44	136.4	136.4
Stack Allowable Emission Rate (lb/hr)					2521.54

Sources: Power & Services Boilers: "D" Area CF Boiler

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.

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Attachment 2
Emission Test Protocol

E.I. DuPont

Washington Works

Boilers #1 through #6
Total Suspended Particulate and
Sulfur Dioxide Emissions Testing

E. I. DuPont
P.O. Box 1217
Parkersburg, WV 26102

Revision 2 – October 29, 2001

Prepared by

Precision Air Inc.
P.O. Box 1237
Hockessin, DE 19707

Introduction

The DuPont Washington Works site is located in Parkersburg, West Virginia. The site uses six coal-fired boilers and one natural gas-fired boiler to generate steam for process heating and manufacturing.

Under its Reg 2/2A and Reg 10/10A compliance plans, the site must conduct baseline monitoring for total suspended particulate (TSP) and sulfur dioxide (SO_2), respectively, on each coal-fired boiler. Precision Air Inc. is proposing a modified Method 8 to conduct both TSP and SO_2 simultaneously on each boiler stack. We will modify the sampling train as outlined in 40 CFR Part 60, Appendix A, Method 8, section 1.2, by inserting a heated glass fiber filter between the probe and first impinger.

This document describes the sources to be tested, the operating parameters that will be monitored during each test, and the sampling locations and test methodologies.

Sources

#1 Boiler

The Riley spreader stoker-fired Combustion Engineering boiler produces a maximum of 50,000 pounds of steam per hour based on burning up to 5100 pounds of coal per hour and releasing 64 MM BTU/hr. Crushed coal is routed to two Riley spreader stoker units on the front of the furnace. The feeders fling coal over the flames to the back and onto a continuously moving grate on which the fire is supported on a 3-5" thick layer of ash.

The grate moves the ash bed up to the front of the furnace where the ash drops off and accumulates in a collector hopper under the boiler.

The #1 Boiler is served by a two-stage mechanical dust collector that has 120 6" tubes per stage (240 tubes total) and an estimated efficiency of 97%, passing about 12.8 pounds of flyash per hour into the #1 Stack. The dust collector receives up to 30,000 acfm of air at a maximum of 350 degrees F; the pressure drop across the collector is about 2.9 psi. The stack gas is discharged through the #1 Stack.

#2 Boiler

The Riley spreader stoker-fired Combustion Engineering boiler produces a maximum of 50,000 pounds of steam per hour based on burning up to 5100 pounds of coal per hour and releasing 64 MM BTU/hr. Crushed coal is routed to two Riley spreader stoker units on the front of the furnace. The feeders fling coal over the flames to the back and onto a continuously moving grate on which the fire is supported on a 3-5" thick layer of ash. The grate moves the ash bed up to the front of the furnace where the ash drops off and accumulates in a collector hopper under the boiler.

The #2 Boiler is served by a single stage dust collector followed by a baghouse. The single stage dust collector has 152 tubes and an estimated efficiency of 85%, passing about 86 pounds of flyash per hour onto the baghouse. The dust collector receives up to 22,500 acfm of air at 350 degrees F; the pressure drop across the collector is about 2.6 psi.

The baghouse has 5800 square feet of active filter area with an air to cloth ratio of 4.28. The baghouse is comprised of 490 Teflon® felt bags arranged in one row with five compartments. Each bag is 6.25" in diameter and 9' long. Flue gas discharges through stack #1. Emissions are estimated to be 1 lb/hr or about 98.5% of the particulate presented to the bag house.

#3 Boiler

The Badenhausen Co., (a division of Riley Stoker Corp.) manufactured The Riley spreader stoker-fired water tube design boiler in 1957. It produces a maximum of 75,000 pounds of steam per hour at a continuous load based on burning up to 7500 pounds of coal per hour and releasing 94 MM BTU/hr. Crushed coal is routed to three Riley spreader stoker units on the front of the furnace. The feeders fling coal over the flames to the back and onto a continuously moving grate on which the fire is supported on a 3-5" thick layer of ash. The grate moves the ash bed up to the front of the furnace where the ash drops off and accumulates in a collector hopper under the boiler.

Flue gas is routed through an economizer to preheat the boiler feed water and to cool the stack gas prior to its discharge through Stack #2. Some particulate matter drops off from the economizer and is collected in a hopper at the bottom of the economizer. The 2-stage mechanical dust collector removes additional particulate matter from up to 45,000 acfm stack gas at 350 degrees F. The 2-stage dust collector has 200 Type 6 UP tubes per stage (400 tubes). The overall particulate removal efficiency is estimated to be 97% resulting

inn an emission of about 18.8 lbs./hr. at full rate. Hoppers at the bottom of each dust collector stage receive the ash; ash is removed every 8-12 hours. Flue gas discharges through #2 Stack.

#4 Boiler

The Riley Stoker Corporation manufactured the #4 Boiler for Washington Works in 1958. It is designed for a maximum continuous capacity of 100,000 pounds of steam per hour and will burn 9560 pounds of coal per hour at this rate. The design heat input is 125 million Btu per hour. The steam drum is designed to operate at 350 psi and the operating pressure at the outlet is a maximum of 290 psi. The furnace volume is 4150 cubic feet. The boiler has 8975 square feet of heating surfaces while the water walls have 2455 square feet of heating surface. The approximate volume to normal water level is 8600 gallons.

Flue gas is routed through an economizer to preheat the boiler feed water and to cool the stack gas prior to its discharge through Stack #2. Some particulate matter drops off from the economizer and is collected in a hopper at the bottom of the economizer. The single-stage mechanical dust collector removes additional particulate matter from up to 46,000 acfm stack gas at 350 degrees F. The single-stage dust collector has 225 Type 6 UP tubes. The particulate removal efficiency of the mechanical dust collector is estimated to be 90% resulting in about 55 lbs/hr at full rate being transferred to the baghouse. Hoppers at the bottom of each dust collector stage receive the ash; ash is removed every 8-12 hours.

The baghouse has 10500 square feet of active filter area with an air to cloth ratio of 4.40. The baghouse is comprised of 840 Teflon® felt bags arranged in 2 rows each containing 3 compartments. Each bag is 6.25" in diameter and 9' long. Flue gas discharges through stack #2. Particulate emissions exit the baghouse are expected to be about 1 lb/hr or about 98% of the material presented to it.

#5 Boiler

The Riley Stoker Corporation manufactured the #5 Boiler for Washington Works in 1963. It is designed for a maximum continuous capacity of 150,000 pounds of steam per hour and will burn 12812 pounds of coal per hour at this rate. The design heat input is 181 million Btu per hour. The steam drum is designed to operate at 350 psi and the operating pressure at the outlet is a maximum of 290 psi. The furnace volume is 8375 cubic feet. The boiler has 12640 square feet of heating surfaces while the water walls have 1760 square feet of heating surface and the economizer has 6150 square feet of heat transfer surface. The approximate volume to normal water level is 11715 gallons.

Flue gas is routed through an economizer to preheat the boiler feed water and to cool the stack gas prior to its discharge through Stack #3. Some particulate matter drops off from the economizer and is collected in a hopper at the bottom of the economizer. The single-stage mechanical dust collector removes additional particulate matter from up to 65,000 acfm stack gas at 350 degrees F. The single-stage dust collector has 312 Type 6 UP tubes per stage (312 tubes). The overall particulate removal efficiency is estimated to be 91.2% resulting in about 130 lbs/hr particulate at full rate being transferred to the baghouse feed.

Hoppers at the bottom of each dust collector stage receive the ash; ash is removed every 8-12 hours.

The baghouse has 17640 square feet of active filter area with an air to cloth ratio of 4.42. The baghouse is comprised of 1176 Teflon® felt bags arranged in 2 rows each containing 3 compartments. Each bag is 6.25" in diameter and 9' long. Flue gas discharges through stack #3. Particulate emissions exit the bag house are expected to be about 2 lb/hr, or about 98.5% removal of the material presented to it.

#6 Boiler

The Riley Stoker Corporation manufactured the #6 Boiler for Washington Works in 1967. It is designed for a maximum continuous capacity of 200,000 pounds of steam per hour and will burn 17800 pounds of coal per hour at this rate. The design heat input is 241 million Btu per hour. The steam drum is designed to operate at 350 psi and the operating pressure at the outlet is a maximum of 290 psi.

Flue gas is routed through an economizer to preheat the boiler feed water and to cool the stack gas prior to its discharge through Stack #3. Some particulate matter drops off from the economizer and is collected in a hopper at the bottom of the economizer. The 1-stage mechanical dust collector removes additional particulate matter from up to 86,000 acfm stack gas at 350 degrees F. The 1-stage dust collector has 420 Type 6 UP tubes per stage (420 tubes). The particulate removal efficiency of the mechanical dust collector is estimated to be 93.7% resulting in about 97.5 lbs/hr particulate at full rate before the bag

house. Hoppers at the bottom of each dust collector stage receive the ash; ash is removed every 8-12 hours.

The baghouse has 22680 square feet of active filter area with an air to cloth ratio of 4.55. The baghouse is comprised of 1512 Teflon® felt bags. Each bag is 6.25" in diameter and 9' long. Particulate emissions from the baghouse are estimated to be 3 lb/hr, or about 97% removal of the material presented to it. Flue gas discharges through stack #3.

Operating Parameters

The variables noted below are on the DuPont Washington Works Vantage computer system and are accessible through the NetData program or local Vantage terminals.

#1 Boiler

Stack gas temp.	(var 1461, degrees F)
Steam rate	(var 1363, Mpph)
Overfire air press.	(var 1364, inches of water)
Flue gas oxygen	(var 1367, percent)
Opacity	(visual)
Coal composition	(heat value, sulfur, volatile solids, fixed carbon, ash, moisture)

Proposed Steam Production Rate During Testing 40,000 lb steam/hr

#2 Boiler

Stack gas temp.	(var 1464, degrees F)
Steam rate	(var 1374, Mpph)
Overfire air press.	(var 1375, inches of water)

Flue gas oxygen	(var 1378, percent)
Opacity	(visual)
Coal composition	(heat value, sulfur, volatile solids, fixed carbon, ash, moisture)
Proposed Steam Production Rate During Testing	40,000 lb steam/hr

#3 Boiler

Stack gas temp.	(var 1467, degrees F)
Steam rate	(var 1385, Mpph)
Overfire air press.	(var 1392, inches of water)
Flue gas oxygen	(var 1393, percent)
Opacity	(visual)
Coal composition	(heat value, sulfur, volatile solids, fixed carbon, ash, moisture)
Proposed Steam Production Rate During Testing	60,000 lb steam/hr

#4 Boiler

Stack gas temp.	(var 1470, degrees F)
Steam rate	(var 1303, Mpph)
Overfire air press.	(var 1310, inches of water)
Flue gas oxygen	(var 1311, percent)
Opacity	(visual)
Coal composition	(heat value, sulfur, volatile solids, fixed carbon, ash, moisture)
Proposed Steam Production Rate During Testing	80,000 lb steam/hr

#5 Boiler

Stack gas temp.	(var 1473, degrees F)
Steam rate	(var 1322, Mpph)

Overfire air press.	(var 1329, inches of water)
Flue gas oxygen	(var 1330, percent)
Opacity	(visual)
Coal composition	(heat value, sulfur, volatile solids, fixed carbon, ash, moisture)
Proposed Steam Production Rate During Testing	120,000 lb steam/hr

#6 Boiler

Stack gas temp.	(var 1476, degrees F)
Steam rate	(var 1341, Mpph)
Overfire air press.	(var 1348, inches of water)
Flue gas oxygen	(var 1349, percent)
Opacity	(visual)
Coal composition	(heat value, sulfur, volatile solids, fixed carbon, ash, moisture)
Proposed Steam Production Rate During Testing	160,000 lb steam/hr

Sampling Locations

#1 Boiler

There are 6 sample ports located in the north-facing ductwork leading to the #1 Stack from the #1 boiler. The 4" diameter sample ports are located about 3 feet above the platform grating as shown in Figure 1. The platform is about 10 feet above ground and is accessible by stairs. Records show that the nearest upstream and downstream disturbances are 2.658 and 0.683 diameters, respectively, from the sampling location.

From 40 CFR 60, Appendix A, Method 1, this location fits the definition of an "allowed location", at least 2 stack diameters downstream and a 1/2 stack diameter upstream from any flow disturbance (bend, expansion, contraction, visible flame).

#2 Boiler

There are 6 sample ports located in the south-facing ductwork leading to the #1 Stack from the #2 Boiler. The 4" diameter sample ports are located about 3 feet above the platform grating as shown in Figure 2. The platform is about 10 feet above ground and is accessible by stairs.

From 40 CFR 60, Appendix A, Method 1, this location fits the definition of an "allowed location", at least 2 stack diameters downstream and a 1/2 stack diameter upstream from any flow disturbance (bend, expansion, contraction, visible flame).

#3 Boiler

Prior to the testing, six sample ports will be installed in the ductwork leading from Boiler #3 to the #2 Stack in the same configuration as Boiler #2; see Figure 2. We will sample each duct on a 4 x 6 sampling grid for a total of 24 traverse points.

From 40 CFR 60, Appendix A, Method 1, this location will fit the definition of an "allowed location", at least 2 stack diameters downstream and a 1/2 stack diameter upstream from any flow disturbance (bend, expansion, contraction, visible flame).

#4 Boiler

There are 7 sample ports located in the south-facing ductwork leading to the #2 Stack from the #4 Boiler. The 4" diameter sample ports are located about 3 feet above the platform grating as shown in Figure 3. The platform is about 10 feet above ground and is accessible by stairs. Records show that the nearest upstream and downstream disturbances are 2.04 and 0.51 diameters, respectively, from the sample location.

From 40 CFR 60, Appendix A, Method 1, this location will fit the definition of an "allowed location", at least 2 stack diameters downstream and a 1/2 stack diameter upstream from any flow disturbance (bend, expansion, contraction, visible flame).

#5 Boiler

There are 6 sample ports located in the north-facing ductwork leading to the #3 Stack from the #5 Boiler. The 4" diameter sample ports are located about 3 feet above the platform grating as shown in Figure 4. The platform is about 10 feet above ground and is accessible by stairs. Records show that the nearest upstream and downstream disturbances are 2 and 0.5 diameters, respectively, from the sample ports.

From 40 CFR 60, Appendix A, Method 1, this location will fit the definition of an "allowed location", at least 2 stack diameters downstream and a 1/2 stack diameter upstream from any flow disturbance (bend, expansion, contraction, visible flame).

#6 Boiler

There are 7 sample ports located in the south-facing ductwork leading to the #3 Stack from the #6 Boiler. The 4" diameter sample ports are located about 3 feet above the platform grating as shown in Figure 5. The platform is about 15 feet above ground and is accessible by stairs. Records show that the nearest upstream disturbance is 2 diameters from the sample ports and the nearest downstream disturbance is 0.504 diameters from the sample ports.

From 40 CFR 60, Appendix A, Method 1, 2.5, this location will fit the definition of an "allowed location", at least 2 stack diameters downstream and a 1/2 stack diameter upstream from any flow disturbance (bend, expansion, contraction, visible flame).

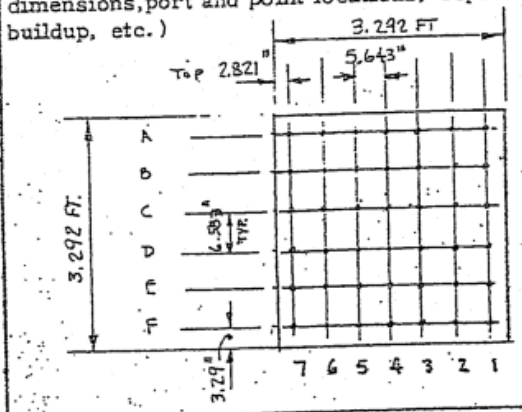
If field measurements determine that any of the sampling locations fit the definition of an "alternative measurement site" where the "measurement locations are less than 2 equivalent stack or duct diameters downstream or less than 1/2 duct diameter upstream from a flow disturbance", a directional flow-sensing probe will be used to measure pitch and yaw angles of the gas flow at 40 or more traverse points.

Stack Test Report — Test # WW 1

SAMPLING SITE DATA SHEET

Site Identification Number

Sampling Plane Schematic: (Show crossectional dimensions, port and point locations, deposit buildup, etc.)



Point Sampling time (Δt): 5 MIN

(1) As: 10.835 ft^2

(2) Nearest Upstream Disturbance: 2.658 Dia's

(3) Nearest Downstream Disturbance 0.683 Dia's

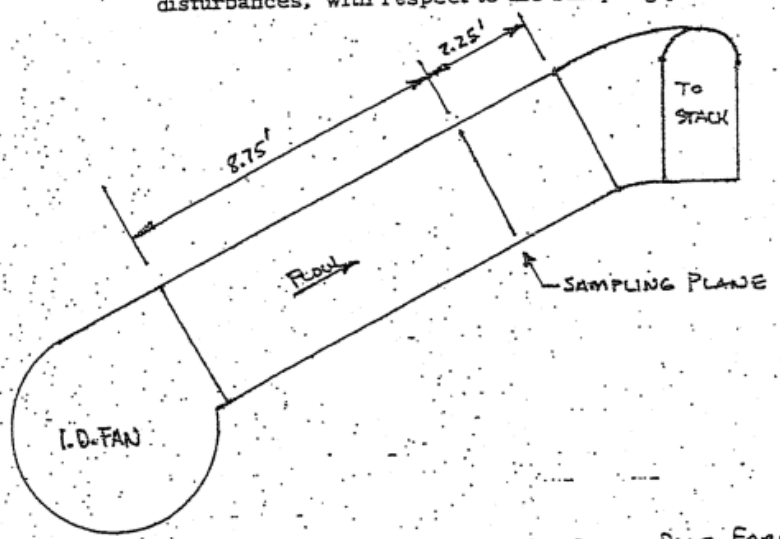
(4) For Rect. Ducts: Equal Areas l/w ratio: 1.167

Minimum Required No of Points**

By Item	No Points	Ck
(1) (As/12)		
(2) See Fig. 3-1	42	
(3) See Fig. 3-1		

Diameter or Equivalent Diameter*: 3.292 FT

Sampling Site Layout: (Show dimensions, general arrangement, bends, baffles, disturbances, with respect to the sampling plane.)



NOTE: 1) ORAL PERMISSION WAS OBTAINED BY PHONE FROM DALE FARLEY TO USE 42 RATHER THAN 48 SAMPLING POINTS.
2) DUE TO CHIMNEY OBSTRUCTION A 3' PROBE WAS EMPLOYED. ROW 1 POINTS WERE ONLY 3.6" FROM ROW 2.

Figure 1. #1 Boiler Sample Locations

POWER & HR TRAINING 3048634328 05/23 '01 11:22 NO.946 02/02

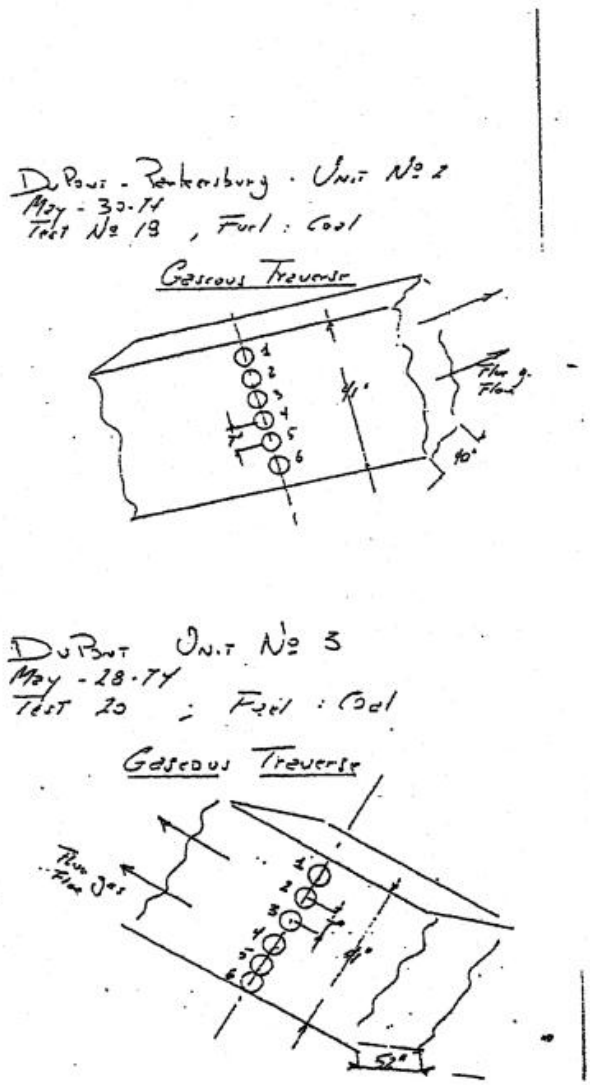


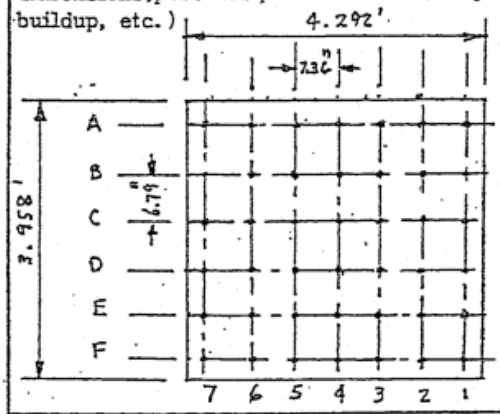
Figure 2. #2 and #3 Boiler Sample Locations

Test Report — Test # WW4

SAMPLING SITE DATA SHEET

Site Identification Number

Sampling Plane Schematic: (Show crossectional dimensions, port and point locations, deposit buildup, etc.)



Point Sampling time (Δt): 5

(1) As: 16.99 ft^2

(2) Nearest Upstream Disturbance: 2.04 Dia's

(3) Nearest Downstream Disturbance 0.51 Dia's

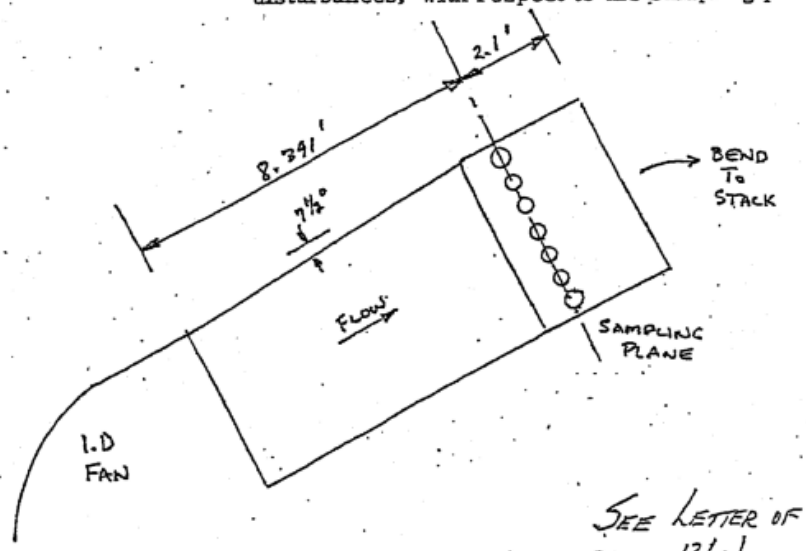
(4) For Rect. Ducts: Equal Areas 1/w ratio: 0.922

Minimum Required No of Points**

By Item	No Points	Ck
(1) (As/12)		
(2) See Fig. 3-1	49	
(3) See Fig. 3-1		

Diameter or Equivalent Diameter*: 4.12 FT

Sampling Site Layout. (Show dimensions, general arrangement, bends, baffles, disturbances, with respect to the sampling plane.)



SEE LETTER OF EXCEPTION DATED 12/16/72, ATTACHED AT END OF THIS REPORT.

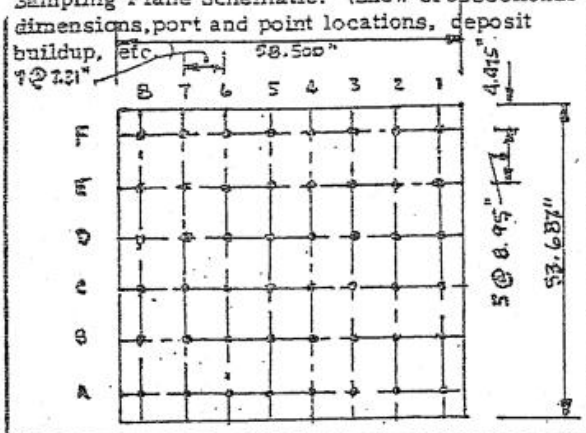
Figure 3. #4 Boiler Sample Locations

. Test Report

MPLING SITE DATA SHEET

Site Identification Number

Sampling Plane Schematic: (Show crossectional dimensions, port and point locations, deposit buildup, etc.)



Point Sampling time (At): 5 MIN.

(1). As: 21.81 ft^2

(2) Nearest Upstream Disturbance: 2 Dia's

(3) Nearest Downstream Disturbance ~ 1/2 Dia's

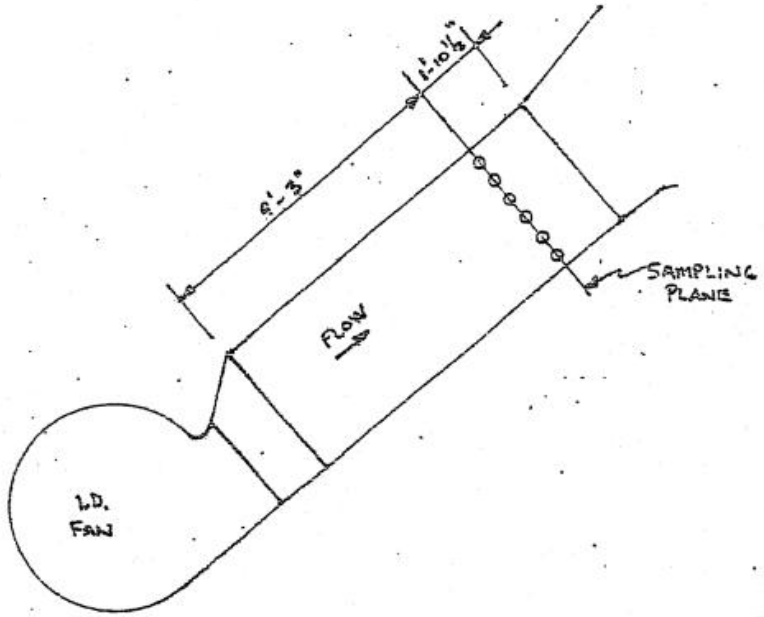
(4) For Rect. Ducts: Equal Areas 1/w ratio: 1.22

Minimum Required No of Points**

By Item	No Points	Ck
(1) (As/12)	-	
(2) See Fig. 3-1	48	
(3) See Fig. 3-1		

Diameter or Equivalent Diameter*: 4.66 FT

Sampling Site Layout. (Show dimensions, general arrangement, bends, baffles, disturbances, with respect to the sampling plane.)



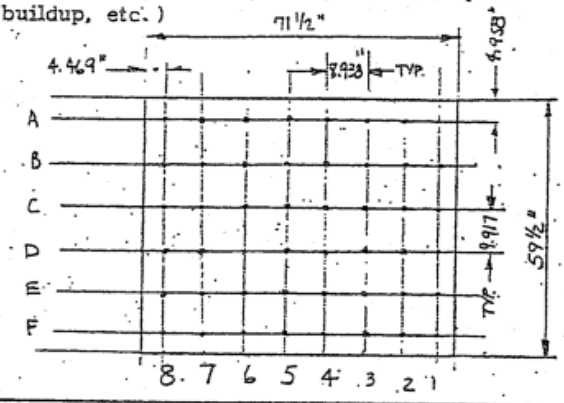
*Eq. Dia = 2 (length)(width)/(length + Width) for Rectangular Ducts.

Figure 4. #5 Boiler Sample Locations

SAMPLING SITE DATA SHEET

Site Identification Number

Sampling Plane Schematic: (Show crossectional dimensions, port and point locations, deposit buildup, etc.)



Diameter or Equivalent Diameter*: 5.4545 FT.

Point Sampling time (Δt): 5 min.

(1) As: 29.543 ft^2

(2) Nearest Upstream Disturbance: 2.00 Dia's

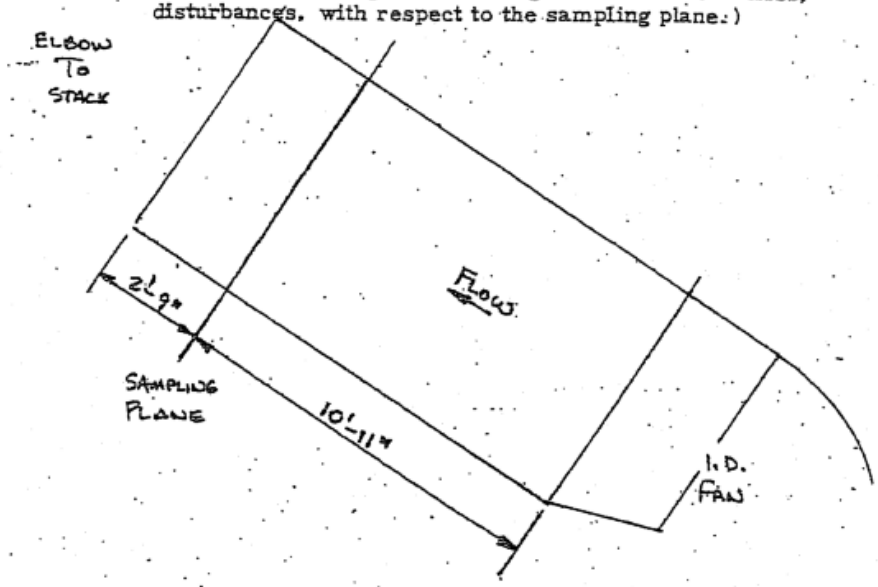
(3) Nearest Downstream Disturbance 0.504 Dia's

(4) For Rect. Ducts: Equal Areas 1/w ratio: 1.109

Minimum Required No of Points **

By Item	No Points	Ck
(1) (As/12)		
(2) See Fig. 3-1	48	
(3) See Fig. 3-1		

Sampling Site Layout. (Show dimensions, general arrangement, bends, baffles, disturbances, with respect to the sampling plane.)



*Eq Dia = 2 (length)(width)/(length + width)

Figure 5. #6 Boiler Sample Locations

Total Particulate and Sulfur Dioxide

The total particulate will be determined following EPA Methods 1-5 found in 40 CFR Part 60, Appendix A. The system will be modified per US EPA Method 8 to include sulfur dioxide analysis. Visual opacity readings will be made per US EPA Method 9 and recorded while the stack sampling is performed.

Sampling Apparatus Assembly

The Nutech Model 2010 particulate sampling train shown in Figure 6 will be used to conduct the particulate testing. The nozzle and heated probe are constructed of glass leading to the heated filter. The probe and a pre-weighed filter will be maintained at or about stack temperature (45CSR2 Appendix, 4.1.a). An S-type pitot tube attached to the probe will be used to measure the stack gas velocity pressures at each traverse point. An inclined manometer at the console will be used to measure the static and velocity pressures. The stack gas temperature will be measured with a K-type thermocouple also attached to the probe.

The condenser system will consist of four Greenburg-Smith impingers immersed in an ice bath. The first, third, and fourth impingers will be modified by replacing the tip with a 1.3 cm. diameter glass tube. The first impinger will contain 100 ml. of 80 percent isopropanol and the second and third impinger will contain 100 ml. of three percent hydrogen peroxide, followed by an empty impinger, and the fifth impinger will contain a pre-weighed amount of silica gel. The final impinger temperature will be monitored with a thermocouple attached to the outlet of the sampling train.

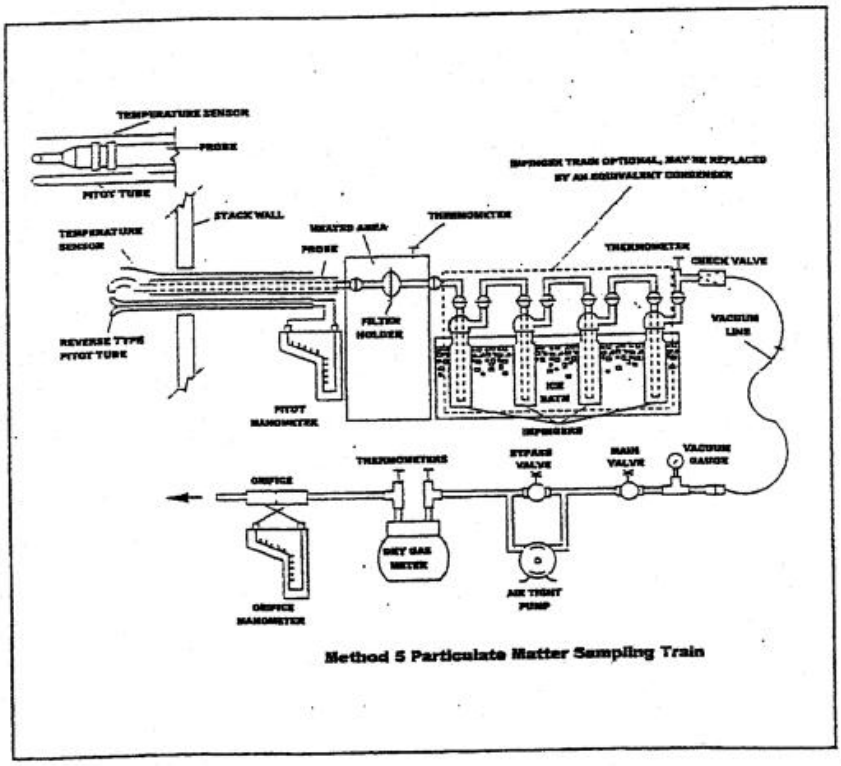

TEMPERATURE SENSOR
PROBE
PITOT TUBE
STACK WALL
TEMPERATURE SENSOR
HEATED AREA
THERMOMETER
PROBE
THERMOMETER
CHECK VALVE
FILTER HOLDER
VACUUM LINE
REVERSE TYPE PITOT TUBE
ICE BATH
PITOT MANOMETER
IMPINGERS
THERMOMETERS
BYPASS VALVE
MAIN VALVE
VACUUM GAUGE
ORIFICE
DRY GAS METER
AIR TIGHT PUMP
ORIFICE MANOMETER
Method 5 Particulate Matter Sampling Train

Figure 6.

Quality Control

Before use in the field, the S-type pitot tubes will be calibrated in a wind tunnel to determine the coefficient of the pitot tube on the probe nozzle assembly. The stack temperature thermocouple will be calibrated over a range of temperatures expected at the sampling location. The dry gas meter used for the sample volume will be calibrated with five critical orifices prior to field sampling. A single point calibration will be conducted following the field sampling with an orifice providing the same flow rate as used during the field test.

Sampling Procedures

Preliminary Determinations

EPA Method 1 will be used to determine the minimum number of sampling traverse points. The sampling location requires 24 traverse points for the velocity determination. The stack gas velocity and dry volumetric flow rate will be determined following EPA Method 2 with the S-type pitot tube and inclined manometer. The molecular weight of the stack gas will be determined following EPA Method 3 with oxygen and carbon dioxide measurements taken on an integrated gas sample collected during the Method 5 sampling. The oxygen content will be measured on an oxygen analyzer zeroed with nitrogen and spanned on two upscale calibration gases. The carbon dioxide content will be measured on a Horiba Model PIR-2000 zeroed with nitrogen and calibrated with two upscale calibration gases.

Particulate Train Operation

The duct will be sampled at twelve traverse points located across a 4 x 6 grid. Three two-hour tests will be conducted on each stack. The minimum total sample volume will be 60 cubic feet adjusted to 68 °F and 29.92 in Hg. The filter will be desiccated and weighed following the test to determine the total particulate emissions. The impinger water gain and the silica gel weight gain will be used to calculate the stack gas moisture content. The impinger solutions will be analyzed by the barium-thorin titration method for sulfate content.

Quality Control

A pre-test leak check will be conducted on the pitot tube by blowing through the impact opening until at least 3 inches of water pressure registers on the manometer. The impact opening will be sealed off for 15 seconds to verify no leaks are present. A similar leak check will be conducted at the conclusion of the test. Before operating the sampling train, a pre-test leak check will also be performed by plugging the sampling train and pulling 15 inches of mercury vacuum on the system. The leakage rate is acceptable if it is no greater than four percent of the average sampling rate or 0.02 cubic feet per minute. A post test leak check will also be conducted in a similar manner except at a vacuum equal to or greater than the highest value recorded during the sampling.

01/21/02

Attachment 3
Example Calculations Supporting Table 3, Columns 1-5

Example Calculations Supporting Table 3, Columns 1-5

3.1 lb SO_2/mm BTU x 769.4 mm BTU/hr = 2385.14 lb SO_2/hr

2385.14 lb SO_2/hr x 32.066 lb S/64.06 lb SO_2 = 1193.91 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

DuPont Boiler Number 8 Fuel Usage Report(1)(2)(3)

E. I. duPont de Nemours & Company, Inc. – Washington Works

Permit No. R14-14, Plant ID No. 10700001

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: R13-2617E 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	
~~P203E~~	~~P203~~	~~Cooling Tower A~~	~~None~~	~~TAP-F~~	~~R13-2654~~	~~No~~	~~No~~	~~Yes~~	~~Removed from Service(Note#4)~~
~~P204E~~	~~P204~~	~~Cooling Tower B~~	~~None~~	~~TAP-F~~	~~R13-2654~~	~~No~~	~~No~~	~~Yes~~	~~Removed from Service(Note#4)~~
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 #4 - Sources identified as being "Removed from Service" are considered permanently removed and must undergo 45CSR13 review prior to being returned to service.**~~
Note #5 - Permits are referenced by their number. The revision letter has been left off but the reference is to the most current revision of the numbered permit