



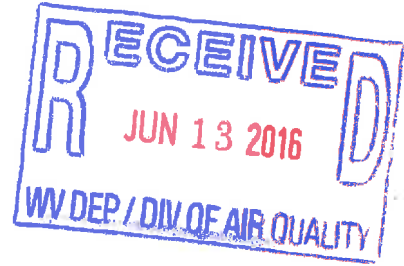
The Chemours Company  
Washington Works  
8480 DuPont Road  
PO Box 1217  
Washington, WV 26181

304-863-4000  
chemours.com

June 9, 2016

**CERTIFIED MAIL – 7014 1820 0001 2876 2168**  
**RETURN RECEIPT REQUESTED**

Mr. W. F. Durham, Director  
Division of Air Quality  
WV Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304



**Title V Renewal Application Pages for Application for Segment 10 of 14 – Power and Services –  
Chemours Washington Works**

Dear Mr. Durham:

Attached, you will find a paper copy of the required information and two (2) copies on Compact Disk (CD) of the 45 CSR 30 completed renewal application for the Power and Services Segment (Segment 10 of 14) of the Chemours Washington Works Title V Operating Permit.

We have prepared the public copy of the pages of the permit renewal application. Chemours is not claiming confidentiality for this segment of the Washington Works Title V Permit.

We have included an additional attachment to encompass supplemental information to support the application. An index has also been provided with this application package to aid in its processing.

This application is being delivered to coincide with the filing of the Notice of Compliance Status (NOCS) for the 40 CFR 63 Subpart DDDDD rule ["Boiler MACT"] that is applicable to this area of Chemours. Please note that we have attached a copy of the separately submitted revised 45 CSR 2/2A plan as supplemental information for the Title V renewal application. As of the date of this letter the revised plan has not been approved by your office. We have also attached a copy of a variance granted Chemours Washington Works for startup timing for our coal-fired stoker boilers.

If you have any questions or concerns about this application, please call me at (304) 863-4448 or you may call John Mentink at (304) 863-4033. Mr. Mentink may also be reached by email at [john.j.mentink@usa.Chemours.com](mailto:john.j.mentink@usa.Chemours.com).

Very truly yours,

Alison A. Crane  
Environmental Leader  
Chemours Washington Works

Enclosures  
AAC:jjm/slb

## **P&S Title V Renewal Application – Index**

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# WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## DIVISION OF AIR QUALITY

601 57<sup>th</sup> Street SE

Charleston, WV 25304

Phone: (304) 926-0475

[www.wvdep.org/daq](http://www.wvdep.org/daq)

### TITLE V PERMIT APPLICATION - GENERAL FORMS

#### Section 1: General Information

<b>1. Name of Applicant (As registered with the WV Secretary of State's Office):</b> The Chemours Company		<b>2. Facility Name or Location:</b> Washington Works Washington WV	
<b>3. DAQ Plant ID No.:</b>  1 0 7 — 0 0 1 8 2		<b>4. Federal Employer ID No. (FEIN):</b>  4 6 4 8 4 5 5 6 4	
<b>5. Permit Application Type:</b> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Initial Permit  <input checked="" type="checkbox"/> Permit Renewal  <input type="checkbox"/> Update to Initial Permit Application         </div> <div>           When did operations commence? 07/01/2015            What is the expiration date of the existing permit? 10/17/2016         </div> </div>			
<b>6. Type of Business Entity:</b> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Corporation  <input type="checkbox"/> Partnership         </div> <div> <input type="checkbox"/> Governmental Agency  <input type="checkbox"/> Limited Partnership         </div> </div>		<b>7. Is the Applicant the:</b>  <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both  If the Applicant is not both the owner and operator, please provide the name and address of the other party.	
<b>8. Number of onsite employees:</b>  750			
<b>9. Governmental Code:</b> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Privately owned and operated; 0  <input type="checkbox"/> Federally owned and operated; 1  <input type="checkbox"/> State government owned and operated; 2         </div> <div> <input type="checkbox"/> County government owned and operated; 3  <input type="checkbox"/> Municipality government owned and operated; 4  <input type="checkbox"/> District government owned and operated; 5         </div> </div>			
<b>10. Business Confidentiality Claims</b>  Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.			

**11. Mailing Address****Street or P.O. Box:** P. O. Box 1217**City:** Washington**State:** WV**Zip:** 26181-1217**Telephone Number:** (304) 863-4240  
(gatehouse)**Fax Number:** (304) 863-4862**12. Facility Location****Street:** 8480 DuPont Road**City:** Washington**County:** Wood**UTM Easting:** 442.368 km**UTM Northing:** 4,346.679 km**Zone:** ☒ 17 or ☐ 18

**Directions:** From I-77 take the Route 50 bypass around Parkersburg towards Ohio. At the last exit prior to the bridge exit from the route 50 Bypass on to DuPont Road. At the light turn left on DuPont road. Approximately ½ mile from the turn you will see the Site on your right and be approaching the exit from the road for the main gate to the facility.

**Portable Source?** ☐ Yes ☒ No**Is facility located within a nonattainment area?** ☐ Yes ☒ No**If yes, for what air pollutants?****Is facility located within 50 miles of another state?** ☒ Yes ☐ No**If yes, name the affected state(s).**  
Ohio**Is facility located within 100 km of a Class I Area<sup>1</sup>?** ☐ Yes ☒ No**If yes, name the area(s).****If no, do emissions impact a Class I Area<sup>1</sup>?** ☐ Yes ☒ N

<sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Robert J. Fehrenbacher		<b>Title:</b> Plant Manager
<b>Street or P.O. Box:</b> P. O. Box 1217 - Building 1		
<b>City:</b> Washington	<b>State:</b> WV	<b>Zip:</b> 26181-1217
<b>Telephone Number:</b> (304) 863-4305	<b>Fax Number:</b> (304) 362-9703	
<b>E-mail address:</b> <a href="mailto:Robert.J.Fehrenbacher@chemours.com">Robert.J.Fehrenbacher@chemours.com</a>		
<b>Environmental Contact:</b> John J. Mentink		<b>Title:</b> SHE Sr. Consultant
<b>Street or P.O. Box:</b> P. O. Box 1217 - Building 1		
<b>City:</b> Washington	<b>State:</b> WV	<b>Zip:</b> 26181-1217
<b>Telephone Number:</b> (304) 863-4033	<b>Fax Number:</b> (304) 863-4862	
<b>E-mail address:</b> <a href="mailto:john.j.mentink@chemours.com">john.j.mentink@chemours.com</a>		
<b>Application Preparer:</b> John J. Mentink		<b>Title:</b> SHE Sr. Consultant
<b>Company:</b> Chemours		
<b>Street or P.O. Box:</b> P. O. Box 1217		
<b>City:</b> Washington	<b>State:</b> WV	<b>Zip:</b> 26181-1217
<b>Telephone Number:</b> (304) 863-4033	<b>Fax Number:</b> (304) 863-4862	
<b>E-mail address:</b> <a href="mailto:John.J.Mentink@chemours.com">John.J.Mentink@chemours.com</a>		

**14. Facility Description**

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Fluoroproducts	Polymers	325211	2821
Fluoroproducts	Fluorine based feedstocks	325120	2869
Fluoroproducts	Acid production	325188	2819

**Provide a general description of operations.**

DuPont Washington Works is a multiple business, multiple product line facility that produces Plastic Resins and their associated feedstock materials. Power and Services manages and operates the plant infrastructure to support the operating business units. To support these operations Power and Services operates both gas and coal fired boilers to produce steam for on-site use. Power and Services personnel also operate an industrial wastewater treatment facility, a sanitary wastewater treatment facility, an air compressor system to supply plant air, and a water treatment facility to supply treated water for both process uses and sanitary uses on-site.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input type="checkbox"/> Minor source NSR (45CSR13)	<input checked="" type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input checked="" type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program EGUs (45CSR26)

<b>19. Non Applicability Determinations</b>
<p><b>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</b></p> <p>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.</p> <p>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.</p>
<input checked="" type="checkbox"/> Permit Shield

**19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.**

**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

- 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<sup>3</sup> for which construction, reconstruction, or modification commenced after July 23, 1984.
- i. 40 C.F.R. 60, Subpart O – “Standards of Performance for Sewage Treatment Plants.” The Power and Service Support Area does not operate an incineration unit or boiler to burn sludge from a municipal sewage treatment plant.

☒ Permit Shield



**19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.**

**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

- 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).

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**19. Non Applicability Determinations (Continued)** - Attach additional pages as necessary.

**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

- 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.

☒ Permit Shield

**19. Non Applicability Determinations (*Continued*) - Attach additional pages as necessary.**

**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

- 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. The wastewater treatment facilities are specifically exempted from applicability for 45 CSR 21.

☒ Permit Shield

**20. Facility-Wide Applicable Requirements**

**List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).**

**3.1. Limitations and Standards**

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency 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, suffer, allow or permit 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 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). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health. [40 C.F.R. 61 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]

☒ Permit Shield

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

- 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, R13-3223, 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, R13-3223, 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, R13-3223, 4.1.2.1. and 45CSR§21-40.3.a.1. State-Enforceable only]



Permit Shield

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

- 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, R13-3223, 4.1.2.2. and 45CSR§21-40.3.c. State-Enforceable only]**:
- a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-3223, 4.1.2.2.a. and 45CSR§21-40.4.e. State-Enforceable only]**
  - b. The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 3.1.12.1. of this permit. **[45CSR13, R13-3223, 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 3.1.12.2. of this permit. **[45CSR13, R13-3223, 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, R13-3223, 4.1.2.4. and 45CSR§21-40.3.c. State-Enforceable only]**:
- a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-3223, 4.1.2.4.a. and 45CSR§21-40.4.e. State-Enforceable only]**
  - b. The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s). **[45CSR13, R13-3223, 4.1.2.4.b.]**
  - c. The MTE and associated emission reductions of the modified source shall be recalculated as part of the site-wide aggregate hourly and annual emissions reduction requirements to demonstrate compliance with the minimum 90% reduction rate as set forth in Section 3.1.12.1. of this permit. **[45CSR13, R13-3223, 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 3.1.12.1. 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 3.1.12.1. of this permit. **[45CSR13, R13-3223, 4.1.2.5.]**



Permit Shield

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

- 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, R13-3223, 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, R13-3223, 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, R13-3223, 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, R13-3223, 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 3.1.13. of this permit. **[45CSR13, R13-3223, 4.1.4. and 45CSR§27-3.1. State-Enforceable only]**



Permit Shield

**20. Facility-Wide Applicable Requirements**

**For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

**3.2. Monitoring Requirements**

- 3.2.1. The permittee shall implement and maintain leak detection and repair (LDAR) programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to 45CSR21-40 producing a product or products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of 45CSR21-37 or alternate procedures approved by the Director. Procedures approved by the Director 40CFR60, Subpart VV, 40CFR61, Subpart V, 40CFR63, Subpart H, 40CFR63, Subpart TT, 40CFR63, Subpart UU, 40CFR65, Subpart F, and 40CFR265, Subpart CC. This requirement shall apply to all units identified in Appendix D of this permit irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40CFR60, 40CFR61, or 40CFR63. **[45CSR13, R13-3223, 4.2.1. and 45CSR§21-40.3.a.2. State-Enforceable only]**
- 3.2.2. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Appendix D of this permit in order to reduce the emissions of TAP in accordance with the requirements of 40CFR63, Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks. Compliance with 40CFR63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR27-4. - Fugitive Emissions of Toxic Air Pollutants. **[45CSR13, R13-3223, 4.2.2. and 45CSR§27-4.1. State-Enforceable only]**
- 3.2.3. In the event a source and associated emission point identified in Appendix D of this permit are subject to the MACT standards of 40CFR63, then compliance with any applicable LDAR program set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the monitoring requirements set forth in this permit. **[45CSR13, R13-3223, 4.2.3., 45CSR§21-37.1.c. and 45CSR§27-4.1. State-Enforceable only]**

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.



## 20. Facility-Wide Applicable Requirements (*Continued*) - Attach additional pages as necessary.

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation.**

### 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)(15) and 45CSR13]

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

- 3.3.2. Manufacturing process units may be exempted upon written request of the permittee to the Director. Exempted units are exempted from the frequency of testing as described in 45CSR21-37, however, LDAR testing of this unit or certification of emission using approved fugitive emission factors will be required every three years, or upon request by the Director or his duly authorized representative. Waiver or scheduling of LDAR testing every three years may be granted by the Director if written request and justification are submitted by the permittee. Units exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verifications by the permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced. [45CSR13, R13-3223, 4.3.1. and 45CSR§21-40.3.a.2. State-Enforceable only]
- 3.3.3. In the event a source and associated emission point identified in Appendix D of this permit are subject to the MACT standards of 40CFR63, then compliance with the applicable LDAR testing requirements set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the LDAR testing requirements set forth in this permit. [45CSR13, R13-3223, 4.3.2., 45CSR§21-37.1.c. and 45CSR§27-4.1. State-Enforceable only]

**3.4. Recordkeeping Requirements**

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.
- [45CSR§30-5.1.c.2.A., 45CSR13, R13-3223, 4.4.1. and R13-2654, 5.4.1.]

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation.**

- 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. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions taken. **[45CSR§30-5.1.c. State-Enforceable only.]**
- 3.4.4. Unless granted a variance pursuant to 45CSR21, Section 9.3, or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40CFR63.6(e) or another applicable Section of 40CFR63, the owner or operator of the facility shall operate all emission control equipment listed in Appendix D of this permit as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shutdown or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR21, Section 9.3 with respect to all periods of non-compliance with the emission limitations set forth in the affected 45CSR13 permits and the emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment. **[45CSR13, R13-3223, 4.4.4.]**
- 3.4.5. The permittee shall maintain records of the results of all monitoring and inspections, emission control measures applied and the nature, timing, and results of repair efforts conducted in accordance to 45CSR27-10. and set forth in the affected 45CSR13 permits as identified in Appendix D of this permit. **[45CSR13, R13-3223, 4.4.5.]**
- 3.4.6. Your site remediation activities are not subject to the requirements of 40 C.F.R. 63, Subpart GGGGG, except for the recordkeeping requirements in this paragraph, provided that you meet the requirements specified in paragraphs 3.4.6.1 through 3.4.6.3 of this section.

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## 20. Facility-Wide Applicable Requirements (*Continued*) - Attach additional pages as necessary.

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

- 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, or mailed first class 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:

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation.**

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> 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 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 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:

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation.**

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
  2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
  3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
  4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken. [45CSR§30-5.1.c.3.C.]
- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary. [45CSR§30-5.1.c.3.B.]
- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement. [45CSR§30-4.3.h.1.B.]
- 3.5.10. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) days of notification by the Director that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 01, 1996) has occurred. Such plan shall included those sources listed in Appendix D of this permit as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.  
[45CSR13, R13-3223, 4.5.1.]

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**21. Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit ( <i>if any</i> )
45 CSR 14 - 14	01/02/2002	
45 CSR 13 - 2654	09/17/2015	
45 CSR 13 - 3223	12/08/2014	
	/ /	

**22. Inactive Permits/Obsolete Permit Conditions**

Permit Number	Date of Issuance	Permit Condition Number
	MM/DD/YYYY	
	/ /	

**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	740
Nitrogen Oxides (NO <sub>x</sub> )	1600
Lead (Pb)	0.06
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	34
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	89
Total Particulate Matter (TSP)	450
Sulfur Dioxide (SO <sub>2</sub> )	10000
Volatile Organic Compounds (VOC)	670
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Antimony and Antimony Compounds	0.0024
Beryllium Compounds	0.0028
Cadmium Compounds	0.0077
Chromium compounds	0.034
Chromium (VI)	0.011
Lead Compounds	0.057
Manganese Compounds	0.066
Mercury Compounds	0.011
Nickel Compounds	0.039
Selenium Compounds	0.18
1,2 Dibromomethane	0.00016
1,2 Dichloroethane	0.0054
2,4 Dinitrotoluene	0.00004
2-Chloroacetophenone	0.00094
Acetaldehyde	0.078
Acetophenone	0.0013
Acrolein	0.039



Benzene	0.18
Benzyl Chloride	0.094
Bromoform	0.0053
Bromomethane	0.022
Carbon Disulfide	0.018
Chlorobenzene	0.003
Chloroethane	0.0057
Chloroform	0.008
Chloromethane	0.071
Cumene	0.00071
Cyanide Compounds	0.34
DEHP	0.0098
Dibenzofuran	0.00000015
Dimethyl Sulfate	0.0065
Ethyl Benzene	0.013
Formaldehyde	25
Heptane	1.4
Methyl Ethyl Ketone	0.053
Methyl hydrazine	0.023
Methyl Methacrylate	4.7
Methylene chloride	0.039
Phenol	0.0022
POM	0.003
Propionaldehyde	0.051
Styrene	0.0034
Tetrachloroethylene	0.0058
Toluene	17
Vinyl Acetate	0.001

Xylenes	0.005
1,1,1-Trichloroethane	0.0027
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Sulfuric Acid Mist	120
Ammonia	7.5
<sup>1</sup> <i>PM<sub>2.5</sub> and PM<sub>10</sub> are components of TSP.</i>	
<sup>2</sup> <i>For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.</i>	

**Section 4: Insignificant Activities**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units on site.  Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

<b>24. Insignificant Activities (Check all that apply)</b>	
<input type="checkbox"/>	20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.  Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input checked="" type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)

<b>24. Insignificant Activities (Check all that apply)</b>		
<input checked="" type="checkbox"/>	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43.	Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input checked="" type="checkbox"/>	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48.	Shock chambers.
<input type="checkbox"/>	49.	Solar simulators.
<input checked="" type="checkbox"/>	50.	Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51.	Steam cleaning operations.
<input checked="" type="checkbox"/>	52.	Steam leaks.
<input type="checkbox"/>	53.	Steam sterilizers.
<input checked="" type="checkbox"/>	54.	Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57.	Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58.	Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59.	Vents from continuous emissions monitors and other analyzers.

**Section 5: Emission Units, Control Devices, and Emission Points****25. Equipment Table**

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

**26. Emission Units**

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

**27. Control Devices**

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

**Section 6: Certification of Information****28. Certification of Truth, Accuracy and Completeness and Certification of Compliance**

*Note: This Certification must be signed by a responsible official. The original, signed in blue ink, must be submitted with the application. Applications without an original signed certification will be considered as incomplete.*

**a. Certification of Truth, Accuracy and Completeness**

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

**b. Compliance Certification**

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

**Responsible official (type or print)**

Name: Robert J. Fehrenbacher

Title: Plant Manager

**Responsible official's signature:**

Signature:



Signature Date:

June 9, 2016

(Must be signed and dated in blue ink)

**Note: Please check all applicable attachments included with this permit application:**

- |                                     |   |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | ATTACHMENT A: Area Map                                      |
| <input checked="" type="checkbox"/> | ATTACHMENT B: Plot Plan(s)                                  |
| <input checked="" type="checkbox"/> | ATTACHMENT C: Process Flow Diagram(s)                       |
| <input checked="" type="checkbox"/> | ATTACHMENT D: Equipment Table                               |
| <input checked="" type="checkbox"/> | ATTACHMENT E: Emission Unit Form(s)                         |
| <input type="checkbox"/>            | ATTACHMENT F: Schedule of Compliance Form(s)                |
| <input checked="" type="checkbox"/> | ATTACHMENT G: Air Pollution Control Device Form(s)          |
| <input type="checkbox"/>            | ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) |





## **ATTACHMENT A – Map to Site Location**

**DIRECTIONS:****FROM AIRPORT:**

1. Exit Airport Rd to Rte 31 S (right)
2. Rte 31 S to Rte 2 S (right)
3. Rte 2 S to Rte 68 S (Emerson Ave)

**A) Washington Works**

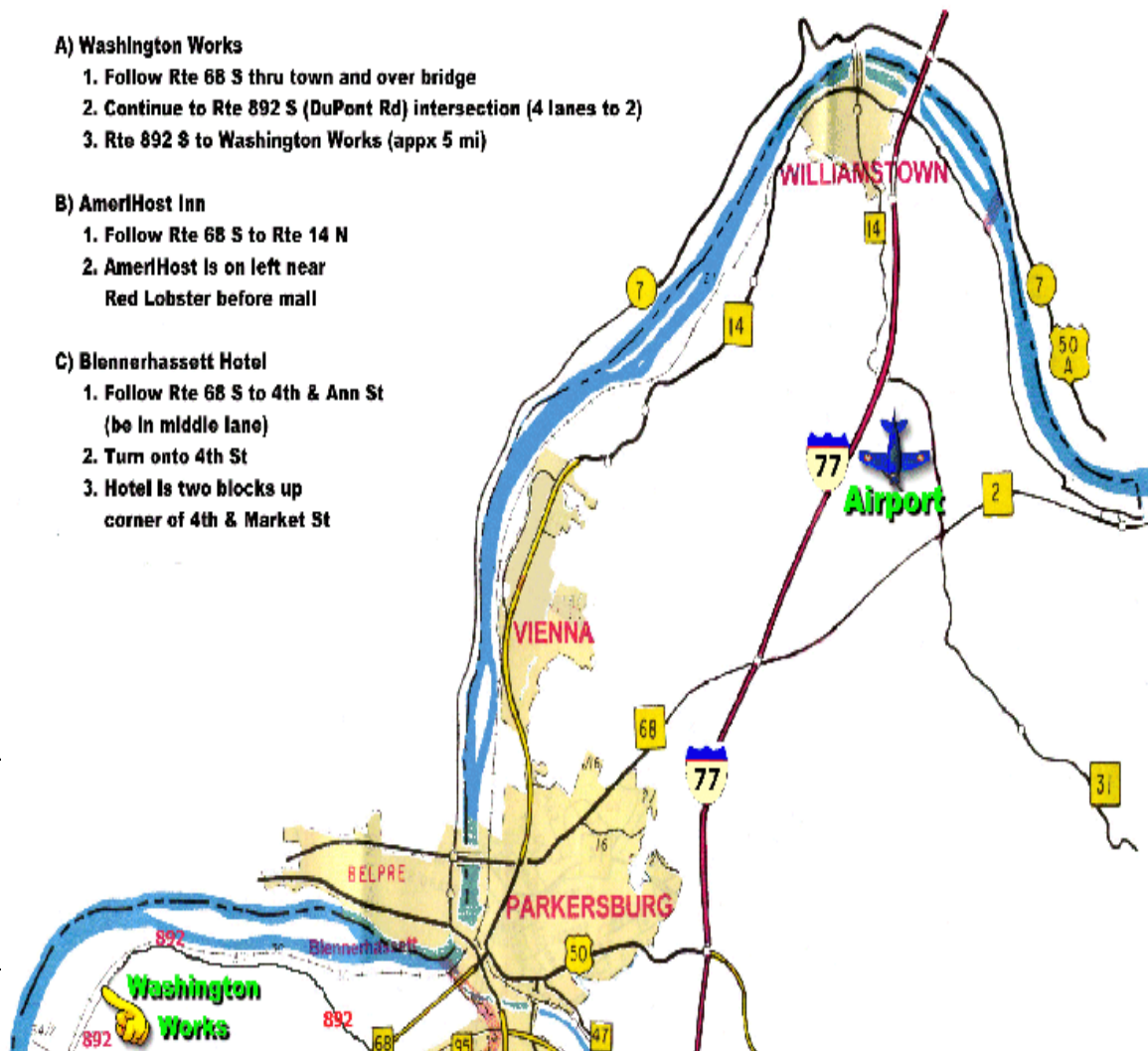
1. Follow Rte 68 S thru town and over bridge
2. Continue to Rte 892 S (DuPont Rd) intersection (4 lanes to 2)
3. Rte 892 S to Washington Works (appx 5 mi)

**B) AmeriHost Inn**

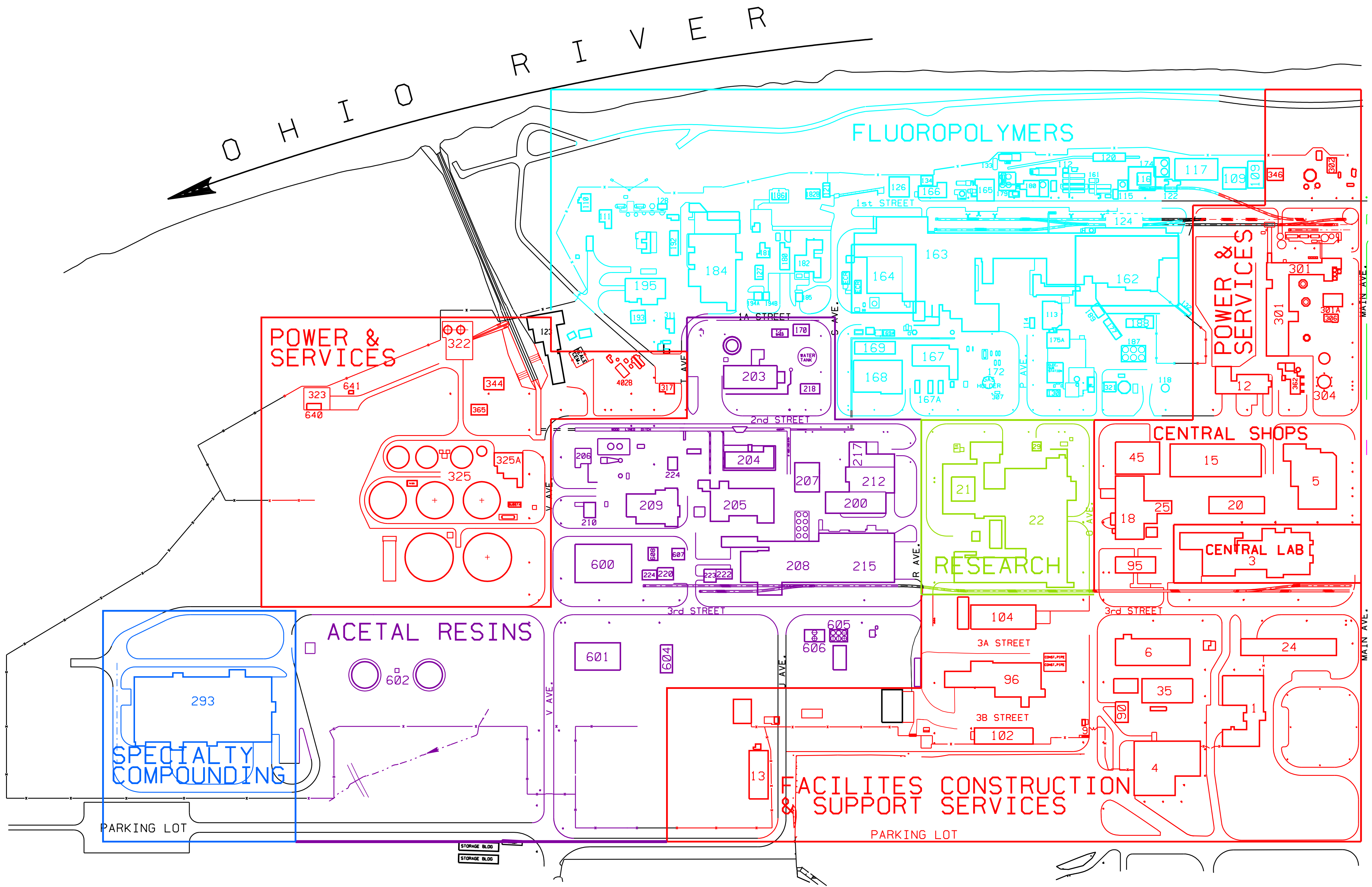
1. Follow Rte 68 S to Rte 14 N
2. AmeriHost is on left near Red Lobster before mall

**C) Blennerhassett Hotel**

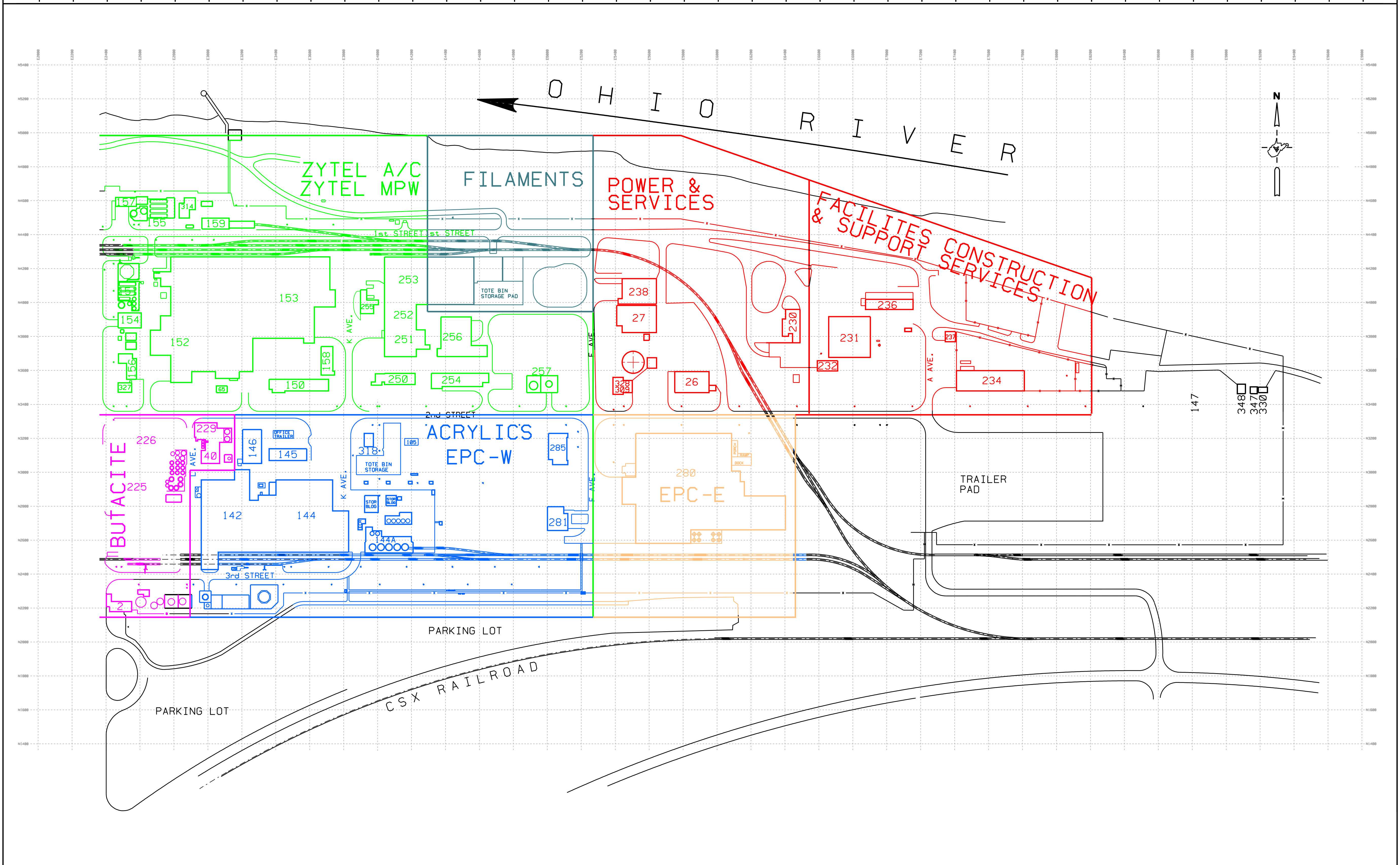
1. Follow Rte 68 S to 4th & Ann St  
(be in middle lane)
2. Turn onto 4th St
3. Hotel is two blocks up corner of 4th & Market St



## **Attachment B – Site Location Maps**



WASHINGTON WORKS TITLE 5 APPLICATION UPDATE				THIS DRAWING HAS BEEN FURNISHED BY E. J. DUPONT DE MENDIPS & CO. THE INFORMATION AND HIGH-NOX THERON MAY NOT BE USED FOR THE DRAWING REPRO- DUCTION WITHOUT THE WRITTEN PERMISSION OF DUPONT. ALL REPRODUCTIONS IN WHOLE OR IN PART, INCLUDING VENDOR'S SHOP DRAWINGS, SHALL BEAR OR REFER TO THIS STAMP.			
SCALE - 1" = 300'				DATE - 11-29-01			
DRAWN BY - JOE GASTON				CHECKED BY - DAVE DRENNEN			
C-1B				APPROVED BY -			
ELEC. CODE CLASS	WJ. NO.	FAA NUMBER	PROJ. NO.	WASHINGTON WORKS WW M-809		AR	

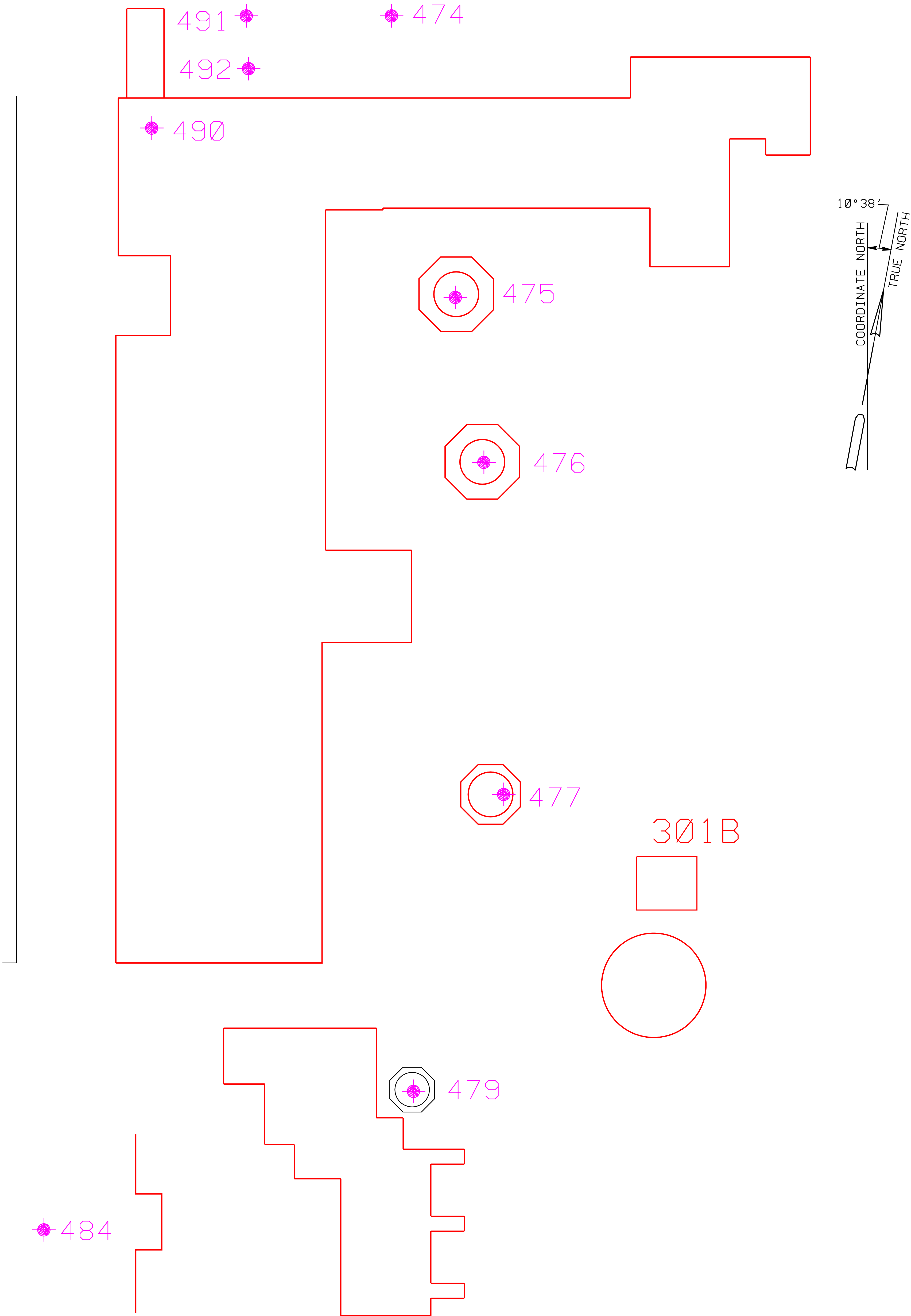


<b>WASHINGTON WORKS</b>			
<b>TITLE 5</b>			
<b>APPLICATION UPDATE</b>			
<b>C-2B</b>			
ELEC. CODE CLASS	WWJ NO.	FAA NUMBER	PROJ. NO.
WASHINGTON WORKS WW M-809			OF AR

THIS DRAWING HAS BEEN FURNISHED BY E.I. DUPONT DE NEMOURS & CO. THE INFORMATION AND DATA THEREON MAY NOT BE USED NOR THE DRAWING REPRODUCED WITHOUT THE WRITTEN PERMISSION OF DUPONT. ALL REPRODUCTIONS IN WHOLE OR IN PART, INCLUDING VENDOR'S SHOP DRAWINGS, SHALL BEAR OR REFER TO THIS STAMP.

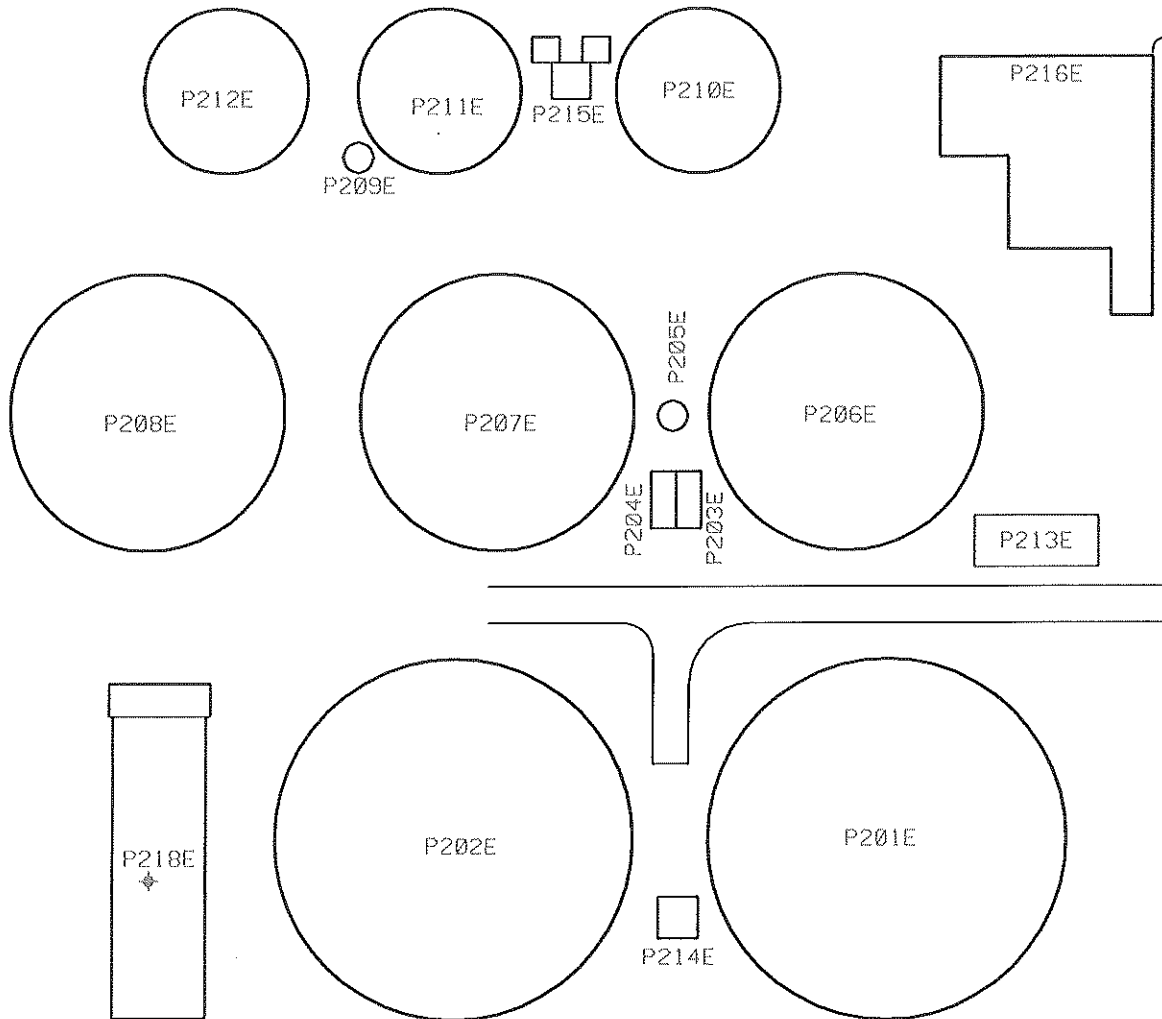
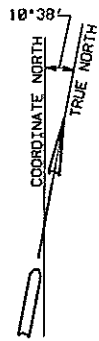
SCALE: 1" = 300' DATE: 11-29-01  
DRAWN BY: JOE GASTON  
UPDATED BY: DAVE DRENNEN  
CHECKED BY:  
APPROVED BY:





EMISSION POINT I.D.

PERMIT APPLICATION TITLE 5 45CSR30		
DAVE DRENNEN	11-09-09	WWM666
SCALE: 1"=600'		-301



BIO WASTE TREATMENT  
R-13 PERMIT APPLICATION  
PLOT PLAN

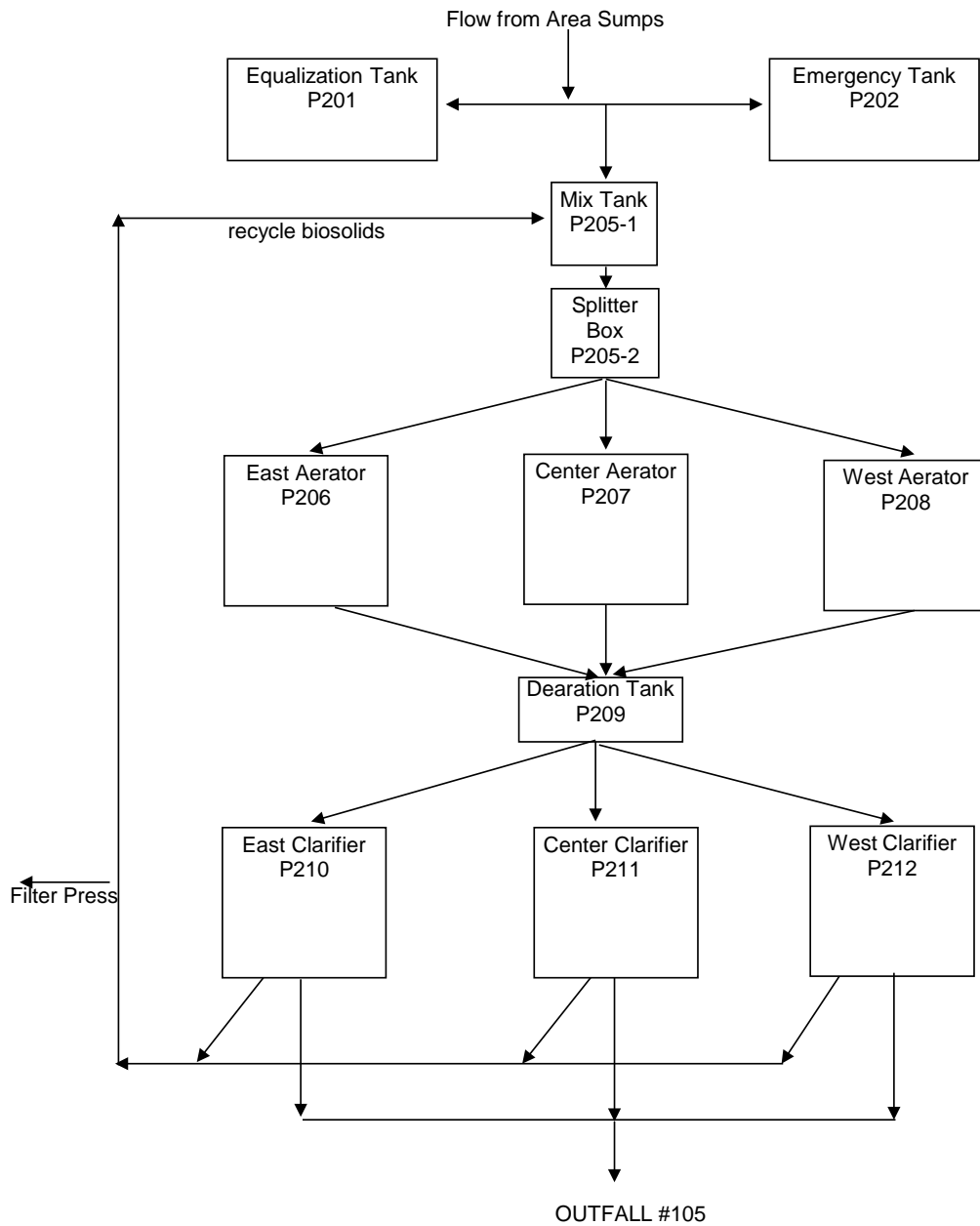
DAVE DRENNEN 2-10-06  
SCALE: 1"=60'

WWM666A

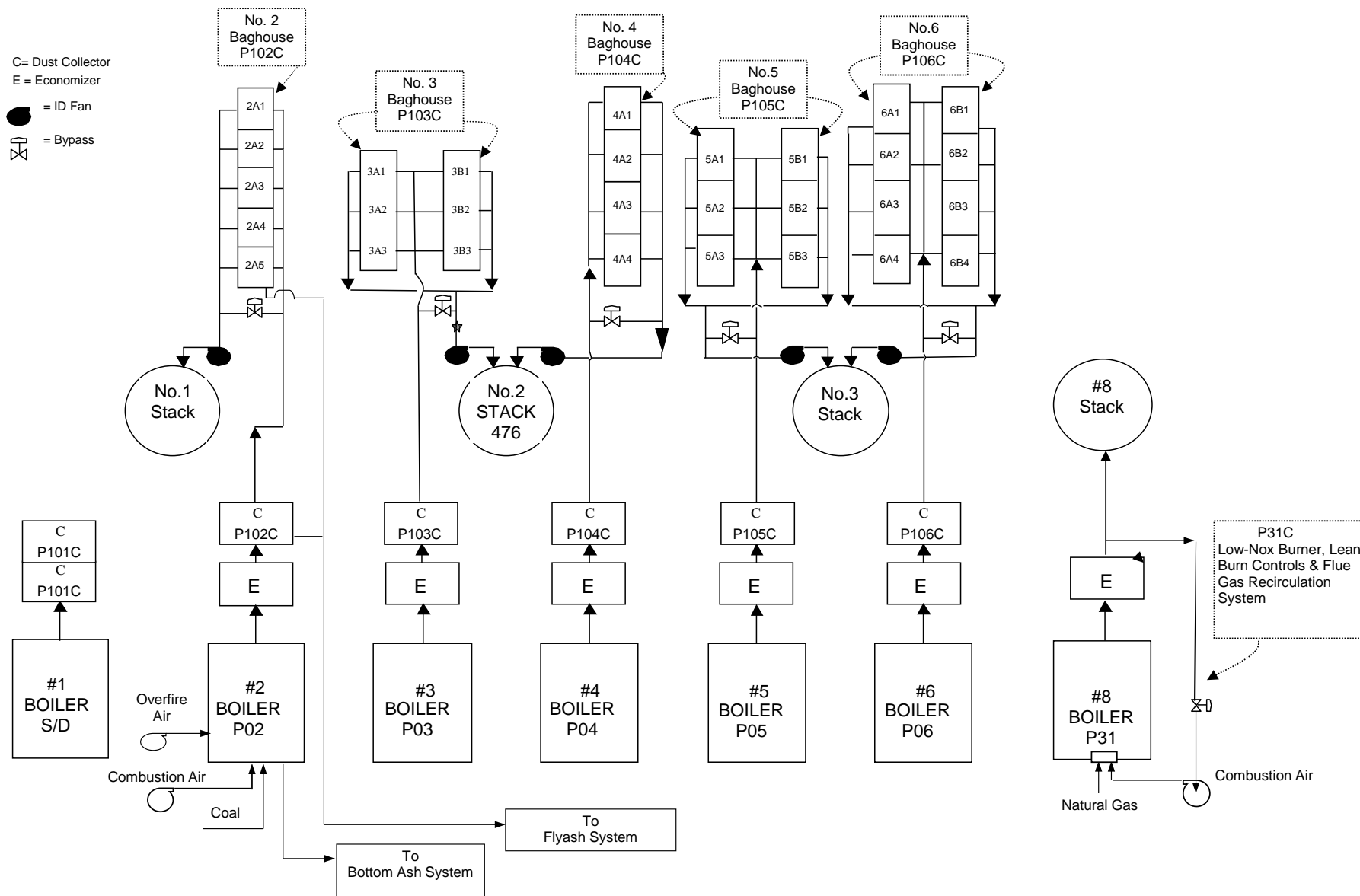




## **Attachment C – Process Flow Diagrams**

**WASHINGTON WORKS WASTE WATER TREATMENT PLANT PROCESS FLOW**

## Washington Works Boilers No. 2 Thru 6 & No. 8 Process Flow Diagram

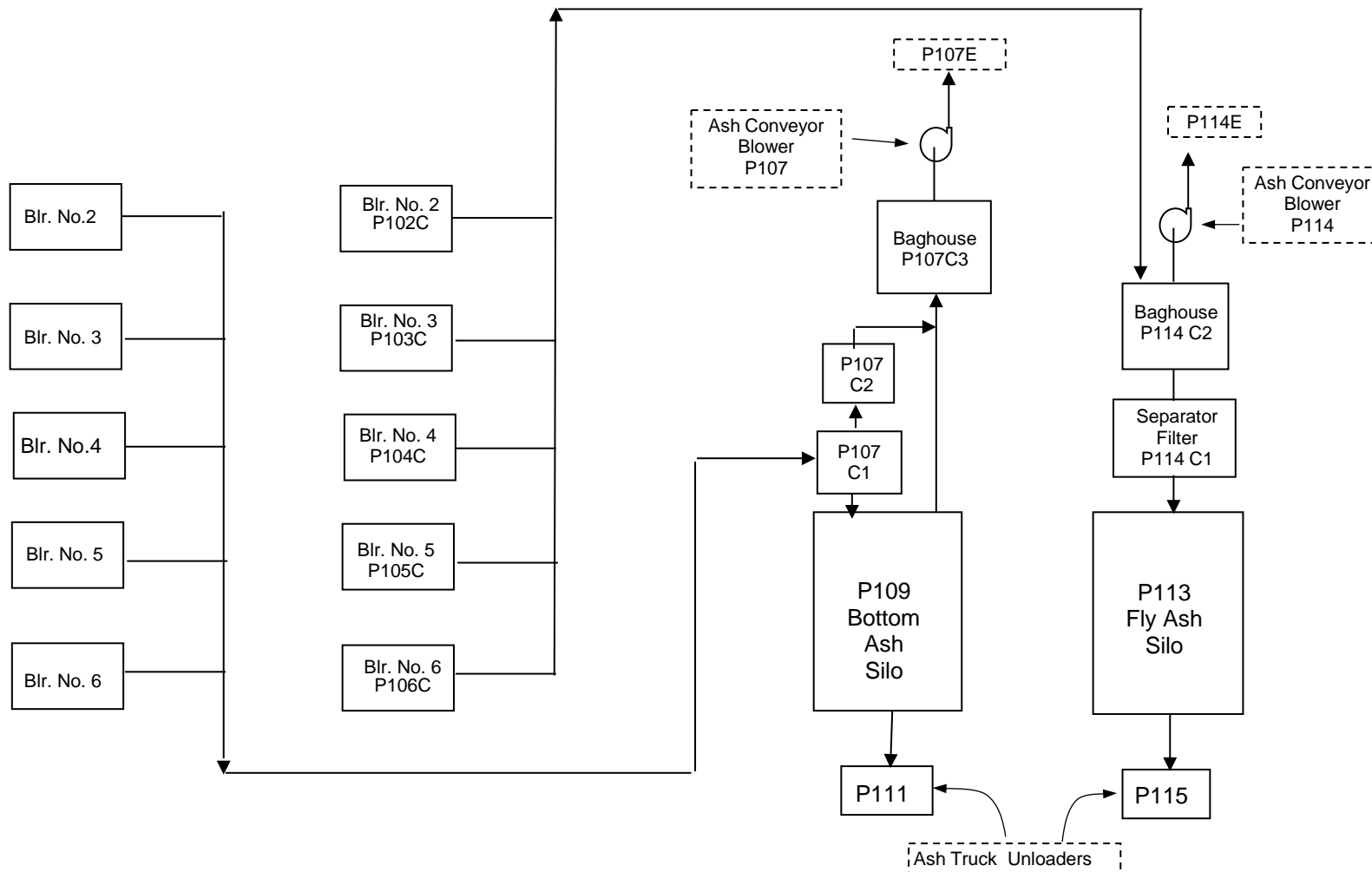


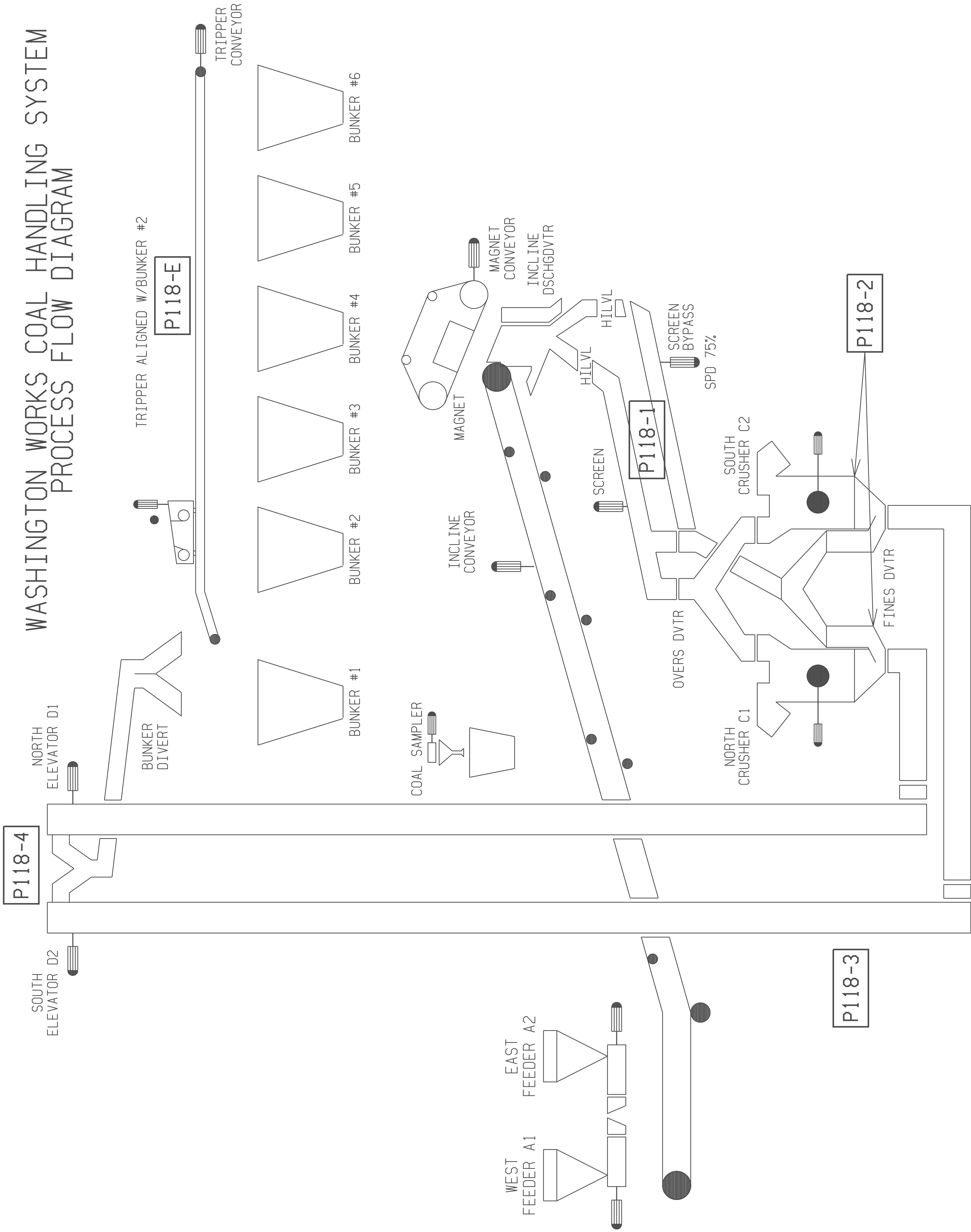
Note: Fuel, Air, Ash Collection System shown on No. 2 Boiler similar for Boilers No. 2 through No. 6

## Washington Works Boilers No. 2 Through No. 6 Bottom Ash and Fly Ash Flow Diagram

Boiler Bottom Ash  
Ash Pit & DeCant  
Hoppers

Boiler Fly Ash  
Mechanical Dust Collectors  
& Baghouses







## **Attachment D – Emission Unit Listing**

**ATTACHMENT D - Title V Equipment Table**  
(includes all emission units at the facility except those designated as  
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/Modified
475	P102C P202C	P02	Spreader Stoker Boiler #2	64.2 mmbtu/hr	1947
476	P103C P203C	P03	Spreader Stoker Boiler #3	94 mmbtu/hr	1957
476	P104C P204C	P03	Spreader Stoker Boiler #4	125 mmbtu/hr	1959
477	P105C P205C	P05	Spreader Stoker Boiler #5	181 mmbtu/hr	1963
477	P106C P206C	P06	Spreader Stoker Boiler #6	241 mmbtu/hr	1965
479	P31C	P31	Natural Gas Boiler #8	181 mmbtu/hr	1989
474	NA	P835	Sulfuric Acid Tank #1 (Horizontal)	11,600 gal	1997
474	NA	P836	Sulfuric Acid Tank #2 (Vertical)	17,600 gal	1988
490	Manual Spray	P116	Coal Storage Pile	12,000 tons	1947
490	NA	P117	Roadways in Area	NA	1947
490	Enclosed Building	P118	Coal Handling System (screener, crusher, conveyor, bucket elevator discharge)	75 TPH	1947
491	P107C	P107	Bottom Ash Conveyor/Blower and Storage Silo	5 TPH	1947
491	Water Spray	P111	Bottom Ash Truck Unloader	75 TPH	1947
492	P114C	P114	Fly Ash Conveyor/Blower and Storage Silo	10 TPH	1947; modified 1974
492	Water Spray	P115	Fly Ash Truck Unloader	75 TPH	1974
493	P130C	P130	North Sorbent Silo	4,546 ft <sup>3</sup>	2007
493	P131C	P131	South Sorbent Silo	4,546 ft <sup>3</sup>	2007
470	NA	P901	B344 #8 CAC - Cooling Tower	245 gpm	2000
471	NA	P902	B327 #7 CAC/B156 #9 IR- Cooling Tower	440 gpm	2000
472	NA	P904	B328 #10 IR - Cooling Tower	378 gpm	2000



Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
473	NA	P906	B206 #11 IR - Cooling Tower	193 gpm	2000
480	NA	P201	WWTP Equalization Tank	2,200,000 gal	1973
480	NA	P202	WWTP Emergency Tank	2,200,000 gal	1973
480	NA	P205-1	WWTP Mix Tank	4,800 gal	1973
480	NA	P205-2	WWTP Splitter Box	1,500 gal	1973: modified 1988
480	NA	P206	WWTP Aeration Tank – East	1,200,000 gal	1973
480	NA	P207	WWTP Aeration Tank – Center	1,200,000 gal	1973
480	NA	P208	WWTP Aeration Tank - West	1,200,000 gal	1988
480	NA	P209	WWTP De-aeration Tank	9,950 gal	1980
480	NA	P210	WWTP Clarifier Tank – East	142,500 gal	1973
480	NA	P211	WWTP Clarifier Tank – Center	142,500 gal	1973
480	NA	P212	WWTP Clarifier Tank – West	142,500 gal	1988
480	NA	P214	WWTP Area Sump – Emergency	463 gal	1976
480	NA	P215	WWTP Area Sump – Clarifiers	8,525 gal	1973
480	NA	P218	WWTP De-watering Facility Sump	5,280 gal	1996
480	P216C	P216	WWTP Filter Aid Slurry Tank	5,000 gal	1995
483	NA	P505	Diesel Fuel Storage Tank	3,000 gal	1995
486	NA	P506	Gasoline Storage Tank	1,000 gal	2016
484	NA	P302	B12 Parts Washer	80 gal	Mid 1980s
484	P303	P303	Bead Blasting Unit	900 cfm	2003
485	NA	P304	Boiler Overhaul Parts Washer	80 gal	Mid 1980s
494	NA	P120	Emergency Generator	40 HP	1999
495	NA	P121	#4 Emergency Fire Pump	270 HP	1969
496	NA	P122	#1 Emergency Fire Pump	288 HP	1983
497	NA	P123	#2 Emergency Fire Pump	288 HP	1986

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

## **Attachment E – Emission Unit Sheets**

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P02	No. 2 Boiler	P102C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
<p>The Combustion Engineering spreader stoker-fired water tube boiler was manufactured in 1947 and it produces a maximum of 50,000 pounds of steam per hour based on a continuous rate and releases 64 MM BTU/hr. Coal is routed to two 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. 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.</p>			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Combustion Engineering	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
50,000 pounds steam per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
2.568	22496	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
YES		Direct	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
64.2 MMBtu/hr		N/A - stoker	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Bituminous Coal	2.50%	11%	12,500 btu/lb
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)	7.88	34.49	
Nitrogen Oxides (NO <sub>x</sub> )	22.60	98.98	
Lead (Pb)	0.00	0.00	
Particulate Matter (PM <sub>2.5</sub> )	0.67	2.92	
Particulate Matter (PM <sub>10</sub> )	1.54	6.75	
Total Particulate Matter (TSP)	2.57	11.25	
Sulfur Dioxide (SO <sub>2</sub> )	199.02	871.71	
Volatile Organic Compounds (VOC)	0.13	0.56	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
ANTIMONY	4.62E-05	2.02E-04	
ARSENIC	1.05E-03	4.61E-03	
BERYLLIUM	5.39E-05	2.36E-04	
CADMIUM	1.31E-04	5.74E-04	
CHROMIUM	6.68E-04	2.92E-03	
CHROMIUM(VI)	2.03E-04	8.89E-04	
COBALT	2.57E-04	1.12E-03	
MANGANESE	1.26E-03	5.51E-03	
MERCURY	3.66E-04	1.60E-03	
NICKEL	7.19E-04	3.15E-03	
SELENIUM	3.34E-03	1.46E-02	
ACETALDEHYDE	1.46E-03	6.41E-03	
ACETOPHENONE	3.85E-05	1.69E-04	
ACROLEIN	7.45E-04	3.26E-03	
BENZENE	3.34E-03	1.46E-02	
BENZYL CHLORIDE	1.80E-03	7.87E-03	
BROMOFORM	1.87E-04	8.21E-04	
CARBON DISULFIDE	3.34E-04	1.46E-03	
2-CHLOROACETOPHENONE	1.80E-05	7.87E-05	
CHLOROBENZENE	5.65E-05	2.47E-04	
CHLOROFORM	1.52E-04	6.64E-04	
CUMENE	1.36E-05	5.96E-05	
CYANIDE CMPDS	4.49E-02	1.97E-01	
DIBENZOFURANS	5.73E-09	2.51E-08	
2,4-DINITROTOLUENE	7.19E-07	3.15E-06	
DIMETHYL SULFATE	1.23E-04	5.40E-04	
ETHYL BENZENE	2.41E-04	1.06E-03	
CHLOROETHANE	1.08E-04	4.72E-04	
1,2-DICHLOROETHANE	1.03E-04	4.50E-04	
1,2-DIBROMOETHANE	3.08E-06	1.35E-05	
FORMALDEHYDE	6.16E-04	2.70E-03	
HEXANE	1.72E-04	7.54E-04	
HYDROCHLORIC ACID	1.41E+00	6.19E+00	
HYDROGEN FLOURIDE	3.85E-01	1.69E+00	
ISOPHORONE	1.49E-03	6.52E-03	
BROMOMETHANE	4.11E-04	1.80E-03	
CHLOROMETHANE	1.36E-03	5.96E-03	
METHYL HYDRAZINE	4.37E-04	1.91E-03	
METHYL METHACRYLATE	5.14E-05	2.25E-04	
METHYLENE CHLORIDE	7.45E-04	3.26E-03	
MTBE	8.99E-05	3.94E-04	
PHENOL	4.11E-05	1.80E-04	
PROPIONALDEHYDE	9.76E-04	4.27E-03	
TETRACHLOROETHYLENE	1.10E-04	4.84E-04	
TOLUENE	6.16E-04	2.70E-03	
STYRENE	6.42E-05	2.81E-04	
XYLENES	9.50E-05	4.16E-04	

VINYL ACETATE	1.95E-05	8.55E-05	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	4.87E-05	2.13E-04	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 External Combustion Sources. Regulatory limits. Site specific factors.			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
Continuous Opacity Monitoring system. Annual stack testing of PM, SO <sub>2</sub> , CO, HCl, and Hg for compliance with Boiler MACT, 45CSR2, and 45CSR10. Operating limits based on conditions during performance testing for O <sub>2</sub> , steam rate, and sorbent injection. Daily coal analysis. Record the start time and end time of startup and shutdown. Monitor differential pressure, steam flow, flue gas temperature, and steam pressure during startups and shutdowns. Conduct a tune-up per Boiler MACT requirements. Submit quarterly reports for 45CSR2A and 45CSR10A and semi-annual reports for Boiler MACT. Maintain all records of testing, monitoring, and reporting for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P03	No. 3 Boiler	P103C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Riley spreader stoker-fired water tube boiler was manufactured in 1957. It produces a maximum of 75,000 pounds of steam per hour at a continuous load and releases 94 million BTU/hr. Coal is routed to three 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. 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.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Riley-Stoker Corporation	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1957	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
75,000 pounds steam per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
3.8	32938	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
YES		Direct	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
94 MMBtu/hr		N/A - stoker	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Bituminous Coal	2.50%	11%	12,500 btu/lb
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)	11.68	51.14	
Nitrogen Oxides (NO <sub>x</sub> )	33.09	144.93	
Lead (Pb)	0.00	0.01	
Particulate Matter (PM <sub>2.5</sub> )	0.98	4.28	
Particulate Matter (PM <sub>10</sub> )	2.26	9.88	
Total Particulate Matter (TSP)	3.76	16.47	
Sulfur Dioxide (SO <sub>2</sub> )	291.40	1276.33	
Volatile Organic Compounds (VOC)	0.19	0.82	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
ANTIMONY	6.77E-05	2.96E-04	

ARSENIC	1.54E-03	6.75E-03	
BERYLLIUM	7.90E-05	3.46E-04	
CADMIUM	1.92E-04	8.40E-04	
CHROMIUM	9.78E-04	4.28E-03	
CHROMIUM(VI)	2.97E-04	1.30E-03	
COBALT	2.57E-04	1.12E-03	
MANGANESE	1.84E-03	8.07E-03	
MERCURY	2.14E-05	9.39E-05	
NICKEL	1.05E-03	4.61E-03	
SELENIUM	4.89E-03	2.14E-02	
ACETALDEHYDE	2.14E-03	9.39E-03	
ACETOPHENONE	5.64E-05	2.47E-04	
ACROLEIN	1.09E-03	4.78E-03	
BENZENE	4.89E-03	2.14E-02	
BENZYL CHLORIDE	2.63E-03	1.15E-02	
BROMOFORM	2.74E-04	1.20E-03	
CARBON DISULFIDE	4.89E-04	2.14E-03	
2-CHLOROACETOPHENONE	2.63E-05	1.15E-04	
CHLOROBENZENE	8.27E-05	3.62E-04	
CHLOROFORM	2.22E-04	9.72E-04	
CUMENE	1.99E-05	8.73E-05	
CYANIDE CMPDS	6.58E-02	2.88E-01	
DIBENZOFURANS	8.40E-09	3.68E-08	
2,4-DINITROTOLUENE	1.05E-06	4.61E-06	
DIMETHYL SULFATE	1.80E-04	7.91E-04	
ETHYL BENZENE	3.53E-04	1.55E-03	
CHLOROETHANE	1.58E-04	6.92E-04	
1,2-DICHLOROETHANE	1.50E-04	6.59E-04	
1,2-DIBROMOETHANE	4.51E-06	1.98E-05	
FORMALDEHYDE	9.02E-04	3.95E-03	
HEXANE	2.52E-04	1.10E-03	
HYDROCHLORIC ACID	2.07E+00	9.06E+00	
HYDROGEN FLUORIDE	5.64E-01	2.47E+00	
ISOPHORONE	2.18E-03	9.55E-03	
BROMOMETHANE	6.02E-04	2.64E-03	
CHLOROMETHANE	1.99E-03	8.73E-03	
METHYL HYDRAZINE	6.39E-04	2.80E-03	
METHYL METHACRYLATE	7.52E-05	3.29E-04	
METHYLENE CHLORIDE	1.09E-03	4.78E-03	
MTBE	1.32E-04	5.76E-04	
PHENOL	6.02E-05	2.64E-04	
PROPIONALDEHYDE	1.43E-03	6.26E-03	
TETRACHLOROETHYLENE	1.62E-04	7.08E-04	
TOLUENE	9.02E-04	3.95E-03	
STYRENE	9.40E-05	4.12E-04	
XYLENES	1.39E-04	6.09E-04	
VINYL ACETATE	2.86E-05	1.25E-04	
	<b>Potential Emissions</b>		



<b>Regulated Pollutants other than Criteria and HAP</b>	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	7.12E-05	3.12E-04	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 External Combustion Sources. Regulatory limits. Site specific factors.			
<b>Applicable Requirements</b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Continuous Opacity Monitoring system. Annual stack testing of PM, SO <sub>2</sub> , CO, HCl, and Hg for compliance with Boiler MACT, 45CSR2, and 45CSR10. Operating limits based on conditions during performance testing for O <sub>2</sub> , steam rate, and sorbent injection. Daily coal analysis. Record the start time and end time of startup and shutdown. Monitor differential pressure, steam flow, flue gas temperature, and steam pressure during startups and shutdowns. Conduct a tune-up per Boiler MACT requirements. Submit quarterly reports for 45CSR2A and 45CSR10A and semi-annual reports for Boiler MACT. Maintain all records of testing, monitoring, and reporting for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P04	No. 4 Boiler	P104C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Riley spreader stoker – fired water tube boiler was manufactured in 1958. It produces a maximum capacity of 100,000 pounds of steam per hour at a continuous load and releases 125 million Btu/hr. Coal is routed to three 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. 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.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Riley-Stoker Corporation	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1958	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
100,000 pounds steam per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
5.0	43800	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
YES		Direct	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
125 MMBtu/hr		N/A - stoker	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Bituminous Coal	2.50%	11%	12,500 btu/lb
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)	15.57	68.19	
Nitrogen Oxides (NO <sub>x</sub> )	44.00	192.72	
Lead (Pb)	0.00	0.01	
Particulate Matter (PM <sub>2.5</sub> )	1.30	5.69	
Particulate Matter (PM <sub>10</sub> )	3.00	13.14	
Total Particulate Matter (TSP)	5.00	21.90	
Sulfur Dioxide (SO <sub>2</sub> )	387.50	1697.25	
Volatile Organic Compounds (VOC)	0.25	1.10	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
ANTIMONY	9.00E-05	3.94E-04	
ARSENIC	2.05E-03	8.98E-03	

BERYLLIUM	1.05E-04	4.60E-04	
CADMIUM	2.55E-04	1.12E-03	
CHROMIUM	1.30E-03	5.69E-03	
CHROMIUM(VI)	3.95E-04	1.73E-03	
COBALT	2.57E-04	1.12E-03	
MANGANESE	2.45E-03	1.07E-02	
MERCURY	2.85E-05	1.25E-04	
NICKEL	1.40E-03	6.13E-03	
SELENIUM	6.50E-03	2.85E-02	
ACETALDEHYDE	2.85E-03	1.25E-02	
ACETOPHENONE	7.50E-05	3.29E-04	
ACROLEIN	1.45E-03	6.35E-03	
BENZENE	6.50E-03	2.85E-02	
BENZYL CHLORIDE	3.50E-03	1.53E-02	
BROMOFORM	3.65E-04	1.60E-03	
CARBON DISULFIDE	6.50E-04	2.85E-03	
2-CHLOROACETOPHENONE	3.50E-05	1.53E-04	
CHLOROBENZENE	1.10E-04	4.82E-04	
CHLOROFORM	2.95E-04	1.29E-03	
CUMENE	2.65E-05	1.16E-04	
CYANIDE CMPDS	8.75E-02	3.83E-01	
DIBENZOFURANS	1.12E-08	4.89E-08	
2,4-DINITROTOLUENE	1.40E-06	6.13E-06	
DIMETHYL SULFATE	2.40E-04	1.05E-03	
ETHYL BENZENE	4.70E-04	2.06E-03	
CHLOROETHANE	2.10E-04	9.20E-04	
1,2-DICHLOROETHANE	2.00E-04	8.76E-04	
1,2-DIBROMOETHANE	6.00E-06	2.63E-05	
FORMALDEHYDE	1.20E-03	5.26E-03	
HEXANE	3.35E-04	1.47E-03	
HYDROCHLORIC ACID	2.75E+00	1.20E+01	
HYDROGEN FLOURIDE	7.50E-01	3.29E+00	
ISOPHORONE	2.90E-03	1.27E-02	
BROMOMETHANE	8.00E-04	3.50E-03	
CHLOROMETHANE	2.65E-03	1.16E-02	
METHYL HYDRAZINE	8.50E-04	3.72E-03	
METHYL METHACRYLATE	1.00E-04	4.38E-04	
METHYLENE CHLORIDE	1.45E-03	6.35E-03	
MTBE	1.75E-04	7.67E-04	
PHENOL	8.00E-05	3.50E-04	
PROPIONALDEHYDE	1.90E-03	8.32E-03	
TETRACHLOROETHYLENE	2.15E-04	9.42E-04	
TOLUENE	1.20E-03	5.26E-03	
STYRENE	1.25E-04	5.48E-04	
XYLENES	1.85E-04	8.10E-04	
VINYL ACETATE	3.80E-05	1.66E-04	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	

POLYCYCLIC ORGANIC MATTER	9.47E-05	4.15E-04	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 External Combustion Sources. Regulatory limits. Site specific factors.			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: <i>Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Continuous Opacity Monitoring system. Annual stack testing of PM, SO <sub>2</sub> , CO, HCl, and Hg for compliance with Boiler MACT, 45CSR2, and 45CSR10. Operating limits based on conditions during performance testing for O <sub>2</sub> , steam rate, and sorbent injection. Daily coal analysis. Record the start time and end time of startup and shutdown. Monitor differential pressure, steam flow, flue gas temperature, and steam pressure during startups and shutdowns. Conduct a tune-up per Boiler MACT requirements. Submit quarterly reports for 45CSR2A and 45CSR10A and semi-annual reports for Boiler MACT. Maintain all records of testing, monitoring, and reporting for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P05	No. 5 Boiler	P105C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Riley spreader stoker – fired water tube boiler was manufactured in 1963. It produces a maximum capacity of 150,000 pounds of steam per hour at a continuous load and releases 181 million Btu per hour. Coal is routed to four 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. 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.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Riley-Stoker Corporation	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1963	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
150,000 pounds steam per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
7.2	63422	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
YES		Direct	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
181 MMBtu/hr		N/A - stoker	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Bituminous Coal	2.50%	11%	12,500 btu/lb
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)	23.35	102.28	
Nitrogen Oxides (NO <sub>x</sub> )	63.71	279.06	
Lead (Pb)	0.00	0.01	
Particulate Matter (PM <sub>2.5</sub> )	1.88	8.24	
Particulate Matter (PM <sub>10</sub> )	4.34	19.03	
Total Particulate Matter (TSP)	7.24	31.71	
Sulfur Dioxide (SO <sub>2</sub> )	561.10	2457.62	
Volatile Organic Compounds (VOC)	0.36	1.59	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
ANTIMONY	1.30E-04	5.71E-04	

ARSENIC	2.97E-03	1.30E-02	
BERYLLIUM	1.52E-04	6.66E-04	
CADMIUM	3.69E-04	1.62E-03	
CHROMIUM	1.88E-03	8.24E-03	
CHROMIUM(VI)	5.72E-04	2.51E-03	
COBALT	2.57E-04	1.12E-03	
MANGANESE	3.55E-03	1.55E-02	
MERCURY	4.13E-05	1.81E-04	
NICKEL	2.03E-03	8.88E-03	
SELENIUM	9.41E-03	4.12E-02	
ACETALDEHYDE	4.13E-03	1.81E-02	
ACETOPHENONE	1.09E-04	4.76E-04	
ACROLEIN	2.10E-03	9.20E-03	
BENZENE	9.41E-03	4.12E-02	
BENZYL CHLORIDE	5.07E-03	2.22E-02	
BROMOFORM	5.29E-04	2.31E-03	
CARBON DISULFIDE	9.41E-04	4.12E-03	
2-CHLOROACETOPHENONE	5.07E-05	2.22E-04	
CHLOROBENZENE	1.59E-04	6.98E-04	
CHLOROFORM	4.27E-04	1.87E-03	
CUMENE	3.84E-05	1.68E-04	
CYANIDE CMPDS	1.27E-01	5.55E-01	
DIBENZOFURANS	1.62E-08	7.08E-08	
2,4-DINITROTOLUENE	2.03E-06	8.88E-06	
DIMETHYL SULFATE	3.48E-04	1.52E-03	
ETHYL BENZENE	6.81E-04	2.98E-03	
CHLOROETHANE	3.04E-04	1.33E-03	
1,2-DICHLOROETHANE	2.90E-04	1.27E-03	
1,2-DIBROMOETHANE	8.69E-06	3.81E-05	
FORMALDEHYDE	1.74E-03	7.61E-03	
HEXANE	4.85E-04	2.12E-03	
HYDROCHLORIC ACID	3.98E+00	1.74E+01	
HYDROGEN FLOURIDE	1.09E+00	4.76E+00	
ISOPHORONE	4.20E-03	1.84E-02	
BROMOMETHANE	1.16E-03	5.07E-03	
CHLOROMETHANE	3.84E-03	1.68E-02	
METHYL HYDRAZINE	1.23E-03	5.39E-03	
METHYL METHACRYLATE	1.45E-04	6.34E-04	
METHYLENE CHLORIDE	2.10E-03	9.20E-03	
MTBE	2.53E-04	1.11E-03	
PHENOL	1.16E-04	5.07E-04	
PROPIONALDEHYDE	2.75E-03	1.21E-02	
TETRACHLOROETHYLENE	3.11E-04	1.36E-03	
TOLUENE	1.74E-03	7.61E-03	
STYRENE	1.81E-04	7.93E-04	
XYLENES	2.68E-04	1.17E-03	
VINYL ACETATE	5.50E-05	2.41E-04	
	<b>Potential Emissions</b>		

<b>Regulated Pollutants other than Criteria and HAP</b>	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	1.37E-04	6.01E-04	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 External Combustion Sources. Regulatory limits. Site specific factors.			
<b>Applicable Requirements</b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Continuous Opacity Monitoring system. Annual stack testing of PM, SO <sub>2</sub> , CO, HCl, and Hg for compliance with Boiler MACT, 45CSR2, and 45CSR10. Operating limits based on conditions during performance testing for O <sub>2</sub> , steam rate, and sorbent injection. Daily coal analysis. Record the start time and end time of startup and shutdown. Monitor differential pressure, steam flow, flue gas temperature, and steam pressure during startups and shutdowns. Conduct a tune-up per Boiler MACT requirements. Submit quarterly reports for 45CSR2A and 45CSR10A and semi-annual reports for Boiler MACT. Maintain all records of testing, monitoring, and reporting for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P06	No. 6 Boiler	P106C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Riley spreader stoker – fired water tube boiler was manufactured in 1965. It produces a maximum capacity of 200,000 pounds of steam per hour at a continuous load and releases 241 million Btu per hour. Coal is routed to five 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. 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.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Riley-Stoker Corporation	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1965	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
200,000 pounds steam per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
9.6	84446	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
YES		Direct	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
241 MMBtu/hr		N/A - stoker	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Bituminous Coal	2.50%	11%	12,500 btu/lb
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)	31.70	138.83	
Nitrogen Oxides (NO <sub>x</sub> )	84.83	371.56	
Lead (Pb)	0.00	0.02	
Particulate Matter (PM <sub>2.5</sub> )	2.51	10.98	
Particulate Matter (PM <sub>10</sub> )	5.78	25.33	
Total Particulate Matter (TSP)	9.64	42.22	
Sulfur Dioxide (SO <sub>2</sub> )	747.10	3272.30	
Volatile Organic Compounds (VOC)	0.48	2.11	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
ANTIMONY	1.74E-04	7.60E-04	



ARSENIC	3.95E-03	1.73E-02	
BERYLLIUM	2.02E-04	8.87E-04	
CADMIUM	4.92E-04	2.15E-03	
CHROMIUM	2.51E-03	1.10E-02	
CHROMIUM(VI)	7.62E-04	3.34E-03	
COBALT	2.57E-04	1.12E-03	
MANGANESE	4.84E-03	2.12E-02	
MERCURY	1.37E-03	6.02E-03	
NICKEL	1.23E-02	5.39E-02	
SELENIUM	4.54E-04	1.99E-03	
ACETALDEHYDE	5.49E-03	2.41E-02	
ACETOPHENONE	1.45E-04	6.33E-04	
ACROLEIN	2.80E-03	1.22E-02	
BENZENE	1.25E-02	5.49E-02	
BENZYL CHLORIDE	6.75E-03	2.96E-02	
BROMOFORM	7.04E-04	3.08E-03	
CARBON DISULFIDE	1.25E-03	5.49E-03	
2-CHLOROACETOPHENONE	6.75E-05	2.96E-04	
CHLOROBENZENE	2.12E-04	9.29E-04	
CHLOROFORM	5.69E-04	2.49E-03	
CUMENE	5.11E-05	2.24E-04	
CYANIDE CMPDS	1.69E-01	7.39E-01	
DIBENZOFURANS	2.15E-08	9.43E-08	
2,4-DINITROTOLUENE	2.70E-06	1.18E-05	
DIMETHYL SULFATE	4.63E-04	2.03E-03	
ETHYL BENZENE	9.06E-04	3.97E-03	
CHLOROETHANE	4.05E-04	1.77E-03	
1,2-DICHLOROETHANE	3.86E-04	1.69E-03	
1,2-DIBROMOETHANE	1.16E-05	5.07E-05	
FORMALDEHYDE	2.31E-03	1.01E-02	
HEXANE	6.46E-04	2.83E-03	
HYDROCHLORIC ACID	5.30E+00	2.32E+01	
HYDROGEN FLOURIDE	1.45E+00	6.33E+00	
ISOPHORONE	5.59E-03	2.45E-02	
BROMOMETHANE	1.54E-03	6.76E-03	
CHLOROMETHANE	5.11E-03	2.24E-02	
METHYL HYDRAZINE	1.64E-03	7.18E-03	
METHYL METHACRYLATE	1.93E-04	8.44E-04	
METHYLENE CHLORIDE	2.80E-03	1.22E-02	
MTBE	3.37E-04	1.48E-03	
PHENOL	1.54E-04	6.76E-04	
PROPIONALDEHYDE	3.66E-03	1.60E-02	
TETRACHLOROETHYLENE	4.15E-04	1.82E-03	
TOLUENE	2.31E-03	1.01E-02	
STYRENE	2.41E-04	1.06E-03	
XYLENES	3.57E-04	1.56E-03	
VINYL ACETATE	7.33E-05	3.21E-04	
	<b>Potential Emissions</b>		

Regulated Pollutants other than Criteria and HAP	PPH	TPY
POLYCYCLIC ORGANIC MATTER	1.83E-04	8.00E-04
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> AP-42 External Combustion Sources. Regulatory limits. Site specific factors.		
<b>Applicable Requirements</b> List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included. <u>See Attached List for all Applicable Requirements.</u>		
<input checked="" type="checkbox"/> X Permit Shield		
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>		
Continuous Opacity Monitoring system. Annual stack testing of PM, SO <sub>2</sub> , CO, HCl, and Hg for compliance with Boiler MACT, 45CSR2, and 45CSR10. Operating limits based on conditions during performance testing for O <sub>2</sub> , steam rate, and sorbent injection. Daily coal analysis. Record the start time and end time of startup and shutdown. Monitor differential pressure, steam flow, flue gas temperature, and steam pressure during startups and shutdowns. Conduct a tune-up per Boiler MACT requirements. Submit quarterly reports for 45CSR2A and 45CSR10A and semi-annual reports for Boiler MACT. Maintain all records of testing, monitoring, and reporting for no less than 5 years.		
<b>Are you in compliance with all applicable requirements for this emission unit?</b>		<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .		

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P31	No. 8 Boiler	P31C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The emission unit P31 is a 150,000 lb-steam/hr natural gas fired boiler. The natural gas boiler is located south of the coal fired boilers and has it's own 197' dedicated stack. It has a design pressure of 525 psig and operates at 275 psig at the steam drum outlet.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Babcock & Wilcox	FM-120-97	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1989	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
150,000 pounds steam per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
181000	1585.6	8760 hr/yr	
scf gas per hour	mmscf gas per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
YES		Direct	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
181 MMBtu/hr		N/A - stoker	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Natural Gas	NA	NA	1000 btu/scf
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)	15.20	66.59	
Nitrogen Oxides (NO <sub>x</sub> )	18.10	79.28	
Lead (Pb)	0.00	0.00	
Particulate Matter (PM <sub>2.5</sub> )	0.08	0.34	
Particulate Matter (PM <sub>10</sub> )	0.09	0.41	
Total Particulate Matter (TSP)	0.09	0.41	
Sulfur Dioxide (SO <sub>2</sub> )	0.11	0.48	
Volatile Organic Compounds (VOC)	1.00	4.36	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
ARSENIC	3.62E-05	1.59E-04	
BERYLLIUM	2.17E-06	9.51E-06	

CADMIUM	1.99E-04	8.72E-04	
CHROMIUM	2.53E-04	1.11E-03	
COBALT	1.52E-05	6.66E-05	
MANGANESE	6.88E-05	3.01E-04	
MERCURY	4.71E-05	2.06E-04	
NICKEL	3.80E-04	1.66E-03	
SELENIUM	4.34E-06	1.90E-05	
BENZENE	3.80E-04	1.66E-03	
DICHLOROBENZENE	2.17E-04	9.51E-04	
FORMALDEHYDE	1.36E-02	5.95E-02	
HEXANE	3.26E-01	1.43E+00	
TOLUENE	6.15E-04	2.70E-03	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	1.27E-04	5.54E-04	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 External Combustion Sources. Regulatory limits. Site specific factors.			
<b>Applicable Requirements</b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
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5.2.1 Operate NOx continuous emissions monitoring system			
5.4.1 Monthly record of the quantity of natural gas consumed			
5.4.2 Calculate and record the average hourly and 30-day average NOx emission rate (lb/mmBtu) at the end of each operating day			
5.4.3 Record operating schedule and quality and quantity of fuel burned			
5.5.2 Submit quarterly NOx excess emission report semi-annually			
45CFR63.7500(e) Conduct and document a tune-up once every 5 years			
45CFR63.7550 Submit a compliance report every 5 years.			
Maintain records for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P107	Bottom Ash Conveyor/Blower and Storage Silo	P107C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Bottom Ash Handling System consists of a pneumatic conveying system which crushes the ash as it comes out of each hopper and conveys to the top of the Bottom Ash Silo. Bottom ash is then separated via 2 mechanical cyclones separators into the silo. Conveying air is filtered through the baghouse. Cleaned air is conveyed through the blower to a bottom ash blower vent. A blower creates the conveying air under negative pressure to pull ash through the conveying line.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
United Conveyor	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
5 tons per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
5	10872	8760 hr/yr	
tons ash per hour	tons ash per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	1.60E-03	8.70E-04	
Particulate Matter (PM <sub>10</sub> )	1.60E-03	8.70E-04	
Total Particulate Matter (TSP)	4.00E-03	2.17E-03	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P109	Coal Handling System (conveying, crushing, screening, bucket elevator discharge)	Enclosed Building	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The coal handling system moves coal from a below grade pit to the coal storage bunkers. The coal conveyor is 24" wide and 330 feet long. The coal is transferred through a screen to assure the coal size is less than 1.25". The crusher receives the over-sized coal from the screener which is then directed to the bucket elevators. The bucket elevators transfer coal approximately 81' above ground to discharge the coal into dedicated chutes.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
N/A	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
75 tons per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
75	247102	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.09	0.37	
Particulate Matter (PM <sub>10</sub> )	0.15	0.64	
Total Particulate Matter (TSP)	0.36	1.56	
Sulfur Dioxide (SO <sub>2</sub> )			

Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			



<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P111	Bottom Ash Truck Loader	Water Spray	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The bottom ash truck unloader is a paddle mixing system that mixes water with the bottom ash as it is loaded into the truck. Water is added to minimize dusting of the ash.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
United Conveyor	1535/45	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
75 tons per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
75	10872	8760 hr/yr	
tons ash per hour	tons ash per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	8.35E-03	6.05E-04	
Particulate Matter (PM <sub>10</sub> )	5.52E-02	4.00E-03	
Total Particulate Matter (TSP)	1.17E-01	8.45E-03	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P114	Fly Ash Conveyor/Blower and Storage Silo	P114C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
<p>The fly ash handling system uses a motor driven blower to create a high velocity flow of air through the conveying line. Fly ash is conveyed to a combination Filter/Separator. The lower portion of the filter receives the air/ash mixture and separates most of the ash from the airstream. The air, along with some fine particles of fly ash then enters the upper part of the bag filter where the remaining fly ash is removed from the airstream. The ash is periodically dumped into the fly ash storage bin through an air lock transfer hopper where it is removed from the air stream and deposited into the fly ash storage silo. From the filter/separator, the conveying air passes through the blower and discharges to atmosphere through the fly ash blower vent.</p>			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
United Conveyor	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
10 tons per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
10	16309	8760 hr/yr	
tons ash per hour	tons ash per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	6.40E-03	5.22E-03	
Particulate Matter (PM <sub>10</sub> )	6.40E-03	5.22E-03	
Total Particulate Matter (TSP)	1.60E-02	1.30E-02	

Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P115	Fly Ash Truck Loader	Water Spray	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The fly ash truck unloader is a paddle mixing system that mixes water with the bottom ash as it is loaded into the truck. Water is added to minimize dusting of the ash.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
United Conveyor	1535/45	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
75 tons per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
75	16309	8760 hr/yr	
tons ash per hour	tons ash per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	8.35E-03	9.08E-04	
Particulate Matter (PM <sub>10</sub> )	5.52E-02	6.00E-03	
Total Particulate Matter (TSP)	1.17E-01	1.27E-02	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: <i>Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P116	Coal Storage Pile	Manual Spray	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Emission point P116 represent the coal storage pile located adjacent to the coal fired Boilers No. 1 - 6. The storage pile is a bermed, open area. The coal storage area is approximately 36,450 feet squared. Coal typically arrives by over-the-road truck and is loaded into the bunkers by material handling equipment.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
N/A	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1947	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
12,000 tons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
75	247102	8760 hr/yr	
tons coal per hour	tons coal per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.04	0.18	
Particulate Matter (PM <sub>10</sub> )	0.27	1.18	
Total Particulate Matter (TSP)	0.54	2.38	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			



<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P117	Roadways in Area	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Roadways in the coal storage area.			
<b>Manufacturer:</b>			
N/A			
<b>Model number:</b>		<b>Serial number:</b>	
N/A		N/A	
<b>Construction date:</b>		<b>Installation date:</b>	
N/A		1947	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>		<b>Modification date(s):</b>	
N/A Paved Roadways		N/A	
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
N/A	35986	8760 hr/yr	
	Vehicle Miles Traveled		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	6.60E-03	8.16E-03	
Particulate Matter (PM <sub>10</sub> )	2.69E-02	3.32E-02	
Total Particulate Matter (TSP)	1.34E-01	1.66E-01	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: <i>Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Records of fugitive particulate capture and/or suppression systems used, the times systems were inoperable, and the corrective actions taken to repair these systems will be maintained for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P120	Emergency Generator	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
25 kW emergency generator to be utilized for the purpose of back up power. The emergency generator is a 4-cylinder unit generating 40 horsepower and is to be operated on <u>liquid</u> propane.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Generac	EPS-25	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1999	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
40 Hp			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
4.8	42,048	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Propane	15 gr/100 scf	N/A	15,000 btu/lb
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
		TPY	
Carbon Monoxide (CO)	6.19E-01	2.71E+00	
Nitrogen Oxides (NO <sub>x</sub> )	6.67E-01	2.92E+00	
Lead (Pb)	0.00E+00	0.00E+00	
Particulate Matter (PM <sub>2.5</sub> )	2.40E-02	1.05E-01	
Particulate Matter (PM <sub>10</sub> )	2.40E-02	1.05E-01	
Total Particulate Matter (TSP)	2.40E-02	1.05E-01	
Sulfur Dioxide (SO <sub>2</sub> )	1.68E-03	7.36E-03	
Volatile Organic Compounds (VOC)	3.98E-01	1.74E+00	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
California Air Quality Board emission factors			
<b><i>Applicable Requirements</i></b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
Maintain records of annual maintenance and hours of operation for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P121	#4 Emergency Fire Pump	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Emission unit P121 is a 6 cylinder Cummins diesel pump located in the east pump house for the purpose of pumping water during emergency or other critical conditions. _____			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Cummins	N-T-380 IF	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1969	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
270 Hp			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
19.4	169,944	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Diesel Fuel	15 ppm	N/A	138000
			mmbtu/
			1000 gal
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)	1.80E+00	7.90E+00	
Nitrogen Oxides (NO <sub>x</sub> )	8.37E+00	3.67E+01	
Lead (Pb)	3.61E-07	1.58E-06	
Particulate Matter (PM <sub>2.5</sub> )	5.94E-01	2.60E+00	
Particulate Matter (PM <sub>10</sub> )	5.94E-01	2.60E+00	
Total Particulate Matter (TSP)	5.94E-01	2.60E+00	
Sulfur Dioxide (SO <sub>2</sub> )	5.54E-01	2.42E+00	
Volatile Organic Compounds (VOC)	6.79E-01	2.97E+00	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
ARSENIC	2.84E-07	1.24E-06	
BERYLLIUM	7.99E-09	3.50E-08	
CADMIUM	1.24E-07	5.42E-07	
CHROMIUM	2.84E-07	1.24E-06	
MANGANESE	2.04E-05	8.92E-05	
MERCURY	3.09E-08	1.36E-07	
NICKEL	1.19E-07	5.19E-07	
SELENIUM	6.45E-07	2.82E-06	
ACETALDEHYDE	1.98E-05	8.66E-05	
ACROLEIN	2.38E-06	1.04E-05	
BENZENE	2.41E-05	1.05E-04	
1,3 BUTADIENE	1.01E-06	4.42E-06	
ETHYL BENZENE	7.91E-05	3.47E-04	
FORMALDEHYDE	3.04E-05	1.33E-04	
TOLUENE	1.05E-05	4.62E-05	
XYLENE	7.35E-06	3.22E-05	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	4.33E-06	1.90E-05	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors, Web-Fire, USEPA Region 5 factors, California Air Quality Board emission factors			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: <i>Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<b>See Attached List for all Applicable Requirements.</b>			
<input checked="" type="checkbox"/> X Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			

Maintain records of annual maintenance and hours of operation for no less than 5 years.

**Are you in compliance with all applicable requirements for this emission unit?**

**YES**

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P122	#1 Emergency Fire Pump	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Six cylinder Detroit diesel 6-71T pump located in the west pump house for the purpose of pumping water during emergency or other critical conditions.			
<b>Manufacturer:</b>			
Detroit Diesel			
<b>Model number:</b>		<b>Serial number:</b>	
1064-7312		N/A	
<b>Construction date:</b>		<b>Installation date:</b>	
N/A		1983	
<b>Modification date(s):</b>			
N/A			
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
288 Hp			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
20.7	181,332	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Diesel Fuel	15 ppm	N/A	138000 mmbtu/ 1000 gal
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
		TPY	
Carbon Monoxide (CO)	1.92E+00	8.43E+00	
Nitrogen Oxides (NO <sub>x</sub> )	8.93E+00	3.91E+01	
Lead (Pb)	4.11E-07	1.80E-06	
Particulate Matter (PM <sub>2.5</sub> )	6.34E-01	2.78E+00	
Particulate Matter (PM <sub>10</sub> )	6.34E-01	2.78E+00	
Total Particulate Matter (TSP)	6.34E-01	2.78E+00	
Sulfur Dioxide (SO <sub>2</sub> )	5.90E-01	2.59E+00	
Volatile Organic Compounds (VOC)	7.24E-01	3.17E+00	



Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
ARSENIC	3.23E-07	1.41E-06	
BERYLLIUM	9.10E-09	3.99E-08	
CADMIUM	1.41E-07	6.17E-07	
CHROMIUM	3.23E-07	1.41E-06	
MANGANESE	2.32E-05	1.02E-04	
MERCURY	3.52E-08	1.54E-07	
NICKEL	1.35E-07	5.91E-07	
SELENIUM	7.34E-07	3.21E-06	
ACETALDEHYDE	2.25E-05	9.86E-05	
ACROLEIN	2.72E-06	1.19E-05	
BENZENE	2.74E-05	1.20E-04	
1,3 BUTADIENE	1.15E-06	5.03E-06	
ETHYL BENZENE	9.01E-05	3.95E-04	
FORMALDEHYDE	3.46E-05	1.52E-04	
TOLUENE	1.20E-05	5.26E-05	
XYLENE	8.37E-06	3.66E-05	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	4.93E-06	2.16E-05	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors, Web-Fire, USEPA Region 5 factors, California Air Quality Board emission factors			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> X Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			

Maintain records of annual maintenance and hours of operation for no less than 5 years.

**Are you in compliance with all applicable requirements for this emission unit?**

**YES**

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P123	#2 Emergency Fire Pump	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Emission unit P123 is a 6 cylinder Detroit diesel 6-71T pump located in the west pump house for the purpose of pumping water during emergency or other critical conditions.			
<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Detroit Diesel	1064-7312	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1986	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
288 Hp			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
20.7	181,332	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
Diesel Fuel	15 ppm	N/A	1380 00 mmbtu/ 1000 gal
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
		TPY	
Carbon Monoxide (CO)	1.92E+00	8.43E+00	
Nitrogen Oxides (NO <sub>x</sub> )	8.93E+00	3.91E+01	
Lead (Pb)	4.11E-07	1.80E-06	
Particulate Matter (PM <sub>2.5</sub> )	6.34E-01	2.78E+00	
Particulate Matter (PM <sub>10</sub> )	6.34E-01	2.78E+00	
Total Particulate Matter (TSP)	6.34E-01	2.78E+00	
Sulfur Dioxide (SO <sub>2</sub> )	5.90E-01	2.59E+00	

Volatile Organic Compounds (VOC)	7.24E-01	3.17E+00	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
ARSENIC	3.23E-07	1.41E-06	
BERYLLIUM	9.10E-09	3.99E-08	
CADMIUM	1.41E-07	6.17E-07	
CHROMIUM	3.23E-07	1.41E-06	
MANGANESE	2.32E-05	1.02E-04	
MERCURY	3.52E-08	1.54E-07	
NICKEL	1.35E-07	5.91E-07	
SELENIUM	7.34E-07	3.21E-06	
ACETALDEHYDE	2.25E-05	9.86E-05	
ACROLEIN	2.72E-06	1.19E-05	
BENZENE	2.74E-05	1.20E-04	
1,3 BUTADIENE	1.15E-06	5.03E-06	
ETHYL BENZENE	9.01E-05	3.95E-04	
FORMALDEHYDE	3.46E-05	1.52E-04	
TOLUENE	1.20E-05	5.26E-05	
XYLENE	8.37E-06	3.66E-05	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
POLYCYCLIC ORGANIC MATTER	4.93E-06	2.16E-05	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors, Web-Fire, USEPA Region 5 factors, California Air Quality Board emission factors			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			

Maintain records of annual maintenance and hours of operation for no less than 5 years.

**Are you in compliance with all applicable requirements for this emission unit?**

**YES**

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P130	North Sorbent Silo	P130C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Storage of sorbent material used for emissions control in the coal fired boilers. Material is transferred to the boilers using individual feeders.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Noltec	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2007	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
4546 cubic feet			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
24	5037	8760 hr/yr	
tons sorbent per hour	tons sorbent per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	2.72E-06	5.71E-04	
Particulate Matter (PM <sub>10</sub> )	1.80E-05	3.77E-03	
Total Particulate Matter (TSP)	3.80E-05	7.97E-03	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Equations			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: <i>Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
<p>Visible emissions observation will be conducted at the start of every unloading into the silo. Records will be kept for no less than 5 years.</p>			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P131	South Sorbent Silo	P131C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Storage of sorbent material used for emissions control in the coal fired boilers. Material is transferred to the boilers using individual feeders.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Noltec	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2007	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
4546 cubic feet			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
24	5037	8760 hr/yr	
tons sorbent per hour	tons sorbent per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	2.72E-06	5.71E-04	
Particulate Matter (PM <sub>10</sub> )	1.80E-05	3.77E-03	
Total Particulate Matter (TSP)	3.80E-05	7.97E-03	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	



<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Equations			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: <i>Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
<p>Visible emissions observation will be conducted at the start of every unloading into the silo. Records will be kept for no less than 5 years.</p>			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P201	WWTP Equalization Tank	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Equalization tank is a vertical steel open top tank which receives the waste header flow from the plant. Material time in this unit is approximately 14 hours until it pumped via one of two feed forward pumps to the mix tank. This Equalization tank is at ambient temperature and pressure; there is no mixing in this vessel.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
2,200,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
2000	1051	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	32.63	71.46	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	1.39E+00	3.05E+00	
METHYL METHACRYLATE	5.54E-01	1.21E+00	
TOLUENE	2.23E+00	4.88E+00	
FORMALDEHYDE	1.37E-01	3.00E-01	
ETHYL ACRYLATE	1.32E-02	2.89E-02	
ACRYLIC ACID	4.27E-05	9.36E-05	
HEXANE	1.27E-02	2.78E-02	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
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8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P202	WWTP Emergency Tank	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The Emergency tank is a vertical steel open top tank which received diverted waste flow from the plant. Material is held in this tank until evaluated and released to the waste treatment system via one of two feed forward pumps to the mix tank. This Emergency tank is at ambient temperature and pressure; there is no mixing in this vessel.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
2,200,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
2000	1051	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	32.63	71.46	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	1.39E+00	3.05E+00	
METHYL METHACRYLATE	5.54E-01	1.21E+00	
TOLUENE	2.23E+00	4.88E+00	
FORMALDEHYDE	1.37E-01	3.00E-01	
ETHYL ACRYLATE	1.32E-02	2.89E-02	
ACRYLIC ACID	4.27E-05	9.36E-05	
HEXANE	1.27E-02	2.78E-02	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> X Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
R30-1070001-2012 Part 10 of 14			
8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P205-1/2	WWTP Mix Tank and Splitter Box	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
<p>The Mix tank equalizes the flow from the equalization tank, emergency tank, sludge return and/or filter press filtrate. Flow from the mix tank goes to the splitter box where it is sent to one of three aerators. The Mix tank is at ambient temperature and pressure. The Mix tank is a 4800 gallon vertical carbon steel tank; residence time in the mix tank is approximately 2 minutes. The splitter box receives flow by gravity from the mix tank and serves to divide the flow to the aerators in operation. The splitter box capacity is 1500 gallons at ambient temperature and pressure. Residence time of material is approximately 1 minute.</p>			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
Mix Tank - 4800 gallons Splitter Box - 1500 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
2000	1051	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			

Volatile Organic Compounds (VOC)	29.38	64.35	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
METHANOL	9.61E-01	2.10E+00	
METHYL METHACRYLATE	2.95E-01	6.46E-01	
TOLUENE	1.91E+00	4.18E+00	
FORMALDEHYDE	1.02E-01	2.22E-01	
ETHYL ACRYLATE	7.07E-03	1.55E-02	
ACRYLIC ACID	2.99E-05	6.56E-05	
HEXANE	1.23E-02	2.69E-02	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
R30-1070001-2012 Part 10 of 14			
8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P206	WWTP East Aerator	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The aeration tank is an activated sludge, aerobic bacteria unit in which waste flow is received from the splitter box and biodegraded. The aerator is a vertical open top carbon steel tank at ambient temperature. The aerator is equipped with a fine bubbler system for oxygen transfer and mixing. Flow from the aerator conveys to the deaerator.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
1,200,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
667	350	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	15.59	34.14	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		



	PPH	TPY	
METHANOL	1.51E+00	3.31E+00	
METHYL METHACRYLATE	1.43E-02	3.14E-02	
TOLUENE	5.36E-02	1.17E-01	
FORMALDEHYDE	5.12E-01	1.12E+00	
ETHYL ACRYLATE	2.31E-03	5.05E-03	
ACRYLIC ACID	4.06E-05	8.89E-05	
HEXANE	7.53E-06	1.65E-05	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
R30-1070001-2012 Part 10 of 14			
8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P207	WWTP Center Aerator	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The aeration tank is an activated sludge, aerobic bacteria unit in which waste flow is received from the splitter box and biodegraded. The aerator is a vertical open top carbon steel tank at ambient temperature. The aerator is equipped with a fine bubbler system for oxygen transfer and mixing. Flow from the aerator conveys to the deaerator.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
1,200,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
667	350	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	15.59	34.14	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	1.51E+00	3.31E+00	
METHYL METHACRYLATE	1.43E-02	3.14E-02	
TOLUENE	5.36E-02	1.17E-01	
FORMALDEHYDE	5.12E-01	1.12E+00	
ETHYL ACRYLATE	2.31E-03	5.05E-03	
ACRYLIC ACID	4.06E-05	8.89E-05	
HEXANE	7.53E-06	1.65E-05	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
R30-1070001-2012 Part 10 of 14			
8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P208	WWTP West Aerator	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The aeration tank is an activated sludge, aerobic bacteria unit in which waste flow is received from the splitter box and biodegraded. The aerator is a vertical open top carbon steel tank at ambient temperature. The aerator is equipped with a fine bubbler system for oxygen transfer and mixing. Flow from the aerator conveys to the deaerator.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1988	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
1,200,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
667	350	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	15.59	34.14	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	1.51E+00	3.31E+00	
METHYL METHACRYLATE	1.43E-02	3.14E-02	
TOLUENE	5.36E-02	1.17E-01	
FORMALDEHYDE	5.12E-01	1.12E+00	
ETHYL ACRYLATE	2.31E-03	5.05E-03	
ACRYLIC ACID	4.06E-05	8.89E-05	
HEXANE	7.53E-06	1.65E-05	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
R30-1070001-2012 Part 10 of 14			
8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P209	WWTP Deaerator	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The deaerator is a carbon steel vertical open topped tank. It helps to dissipate the pressure head caused by the elevation difference between the water surface of the aerator and the water surface of the clarifiers, as well as help release entrapped air from the mixed liquor before it reaches the clarifier. Flow is distributed from the deaerator to the clarifiers in operation.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Omnifab, Inc.	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1980	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
10,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
2000	1051	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.01	0.02	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	1.01E-04	2.22E-04	
METHYL METHACRYLATE	6.69E-07	1.47E-06	
TOLUENE	6.99E-06	1.53E-05	
FORMALDEHYDE	3.55E-05	7.77E-05	
ETHYL ACRYLATE	2.11E-07	4.61E-07	
ACRYLIC ACID	1.71E-10	1.52E-07	
HEXANE	1.52E-09	4.07E-10	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> X Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
R30-1070001-2012 Part 10 of 14			
8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P210	WWTP East Clarifier	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Treated effluent from the aerators is received into the clarifier after degassing in the deaerator. The clarifier is operated at ambient temperature and pressure. A sweep arm rotates around the clarifier at a very slow rate to allow the solids to settle and be removed; the effluent water phase flows over the weirs and part is returned to the aeration tanks and the remaining sent to the NPDES outfall 105.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Capital City Ironworkers	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
140,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
667	350	8760 hr/yr	
gallons per minute	million gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.49	1.07	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		



	PPH	TPY	
METHANOL	4.47E-02	9.79E-02	
METHYL METHACRYLATE	2.52E-05	5.53E-05	
TOLUENE	1.68E-05	3.69E-05	
FORMALDEHYDE	2.03E-02	4.45E-02	
ETHYL ACRYLATE	8.06E-06	1.77E-05	
ACRYLIC ACID	6.96E-08	1.52E-07	
HEXANE	1.86E-10	4.07E-10	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
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8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.			
8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.			
8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.			
8.4.2 Calculate emissions monthly.			
8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>  P211	<b>Emission unit name:</b>  WWTP Center Clarifier	<b>List any control devices associated with this emission unit:</b>  None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Treated effluent from the aerators is received into the clarifier after degassing in the dearator. The clarifier is operated at ambient temperature and pressure. A sweep arm rotates around the clarifier at a very slow rate to allow the solids to settle and be removed; the effluent water phase flows over the weirs and part is returned to the aeration tanks and the remaining sent to the NPDES outfall 105.			
<b>Manufacturer:</b> Capital City Ironworkers	<b>Model number:</b> N/A	<b>Serial number:</b> N/A	
<b>Construction date:</b> N/A	<b>Installation date:</b> 1973	<b>Modification date(s):</b> N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 140,000 gallons			
<b>Maximum Hourly Throughput:</b>  667 gallons per minute	<b>Maximum Annual Throughput:</b>  350 million gallons per year	<b>Maximum Operating Schedule:</b>  8760 hr/yr	
<b>Does this emission unit combust fuel?</b>  NO		<b>If yes, is it fired direct or indirect?</b>  N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>  N/A		<b>Type and Btu/hr rating of burners:</b>  N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.49	1.07	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

METHANOL	4.47E-02	9.79E-02
METHYL METHACRYLATE	2.52E-05	5.53E-05
TOLUENE	1.68E-05	3.69E-05
FORMALDEHYDE	2.03E-02	4.45E-02
ETHYL ACRYLATE	8.06E-06	1.77E-05
ACRYLIC ACID	6.96E-08	1.52E-07
HEXANE	1.86E-10	4.07E-10
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Water9 v.3		

#### ***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See Attached List for all Applicable Requirements.

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

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8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.

8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.

8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.

8.4.2 Calculate emissions monthly.

8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.

Are you in compliance with all applicable requirements for this emission unit? ☐ YES

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b> P212	<b>Emission unit name:</b> WWTP West Clarifier	<b>List any control devices associated with this emission unit:</b> None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Treated effluent from the aerators is received into the clarifier after degassing in the dearator. The clarifier is operated at ambient temperature and pressure. A sweep arm rotates around the clarifier at a very slow rate to allow the solids to settle and be removed; the effluent water phase flows over the weirs and part is returned to the aeration tanks and the remaining sent to the NPDES outfall 105.			
<b>Manufacturer:</b> Capital City Ironworkers	<b>Model number:</b> N/A	<b>Serial number:</b> N/A	
<b>Construction date:</b> N/A	<b>Installation date:</b> 1980	<b>Modification date(s):</b> N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 140,000 gallons			
<b>Maximum Hourly Throughput:</b> 667 gallons per minute	<b>Maximum Annual Throughput:</b> 350 million gallons per year	<b>Maximum Operating Schedule:</b> 8760 hr/yr	
<b>Does this emission unit combust fuel?</b> NO		<b>If yes, is it fired direct or indirect?</b> N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A		<b>Type and Btu/hr rating of burners:</b> N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.49	1.07	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	

METHANOL	4.47E-02	9.79E-02
METHYL METHACRYLATE	2.52E-05	5.53E-05
TOLUENE	1.68E-05	3.69E-05
FORMALDEHYDE	2.03E-02	4.45E-02
ETHYL ACRYLATE	8.06E-06	1.77E-05
ACRYLIC ACID	6.96E-08	1.52E-07
HEXANE	1.86E-10	4.07E-10
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Water9 v.3		

#### ***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See Attached List for all Applicable Requirements.

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

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8.2.1 / 8.4.1 Monitor the feed forward flow rate for one-hour averages.

8.2.2 / 8.3.1 Perform daily analysis on the header inlet composite sample for formaldehyde.

8.2.2 / 8.3.2 Perform a weekly analysis on the header inlet composite sample for methanol by an off-site vendor.

8.4.2 Calculate emissions monthly.

8.4.3 Maintain records of flow, analyses, and emissions for no less than 5 years.

Are you in compliance with all applicable requirements for this emission unit? **YES**

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P214	WWTP Emergency Sump	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Sump tanks in the WWTP to collect spills and process materials that are released due to maintenance activities. The system is not used to process chemical containing waste except when it is spilled or otherwise released. All sump systems in the WWTP recycle collected material back to the inlet of the WWTP.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
N/A	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1976	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
463 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
		8760 hr/yr	
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	5.54E-04	1.21E-03	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	4.15E-05	9.08E-05	
METHYL METHACRYLATE	1.16E-07	2.54E-07	
TOLUENE	1.80E-07	3.94E-07	
FORMALDEHYDE	1.68E-05	3.67E-05	
ETHYL ACRYLATE	3.67E-08	8.04E-08	
ACRYLIC ACID	5.70E-11	1.25E-10	
HEXANE	2.16E-12	4.74E-12	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Water9 v.3			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
None			
Are you in compliance with all applicable requirements for this emission unit?			YES
If no, complete the <b>Schedule of Compliance Form</b> as ATTACHMENT F.			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P215	WWTP Clarifier Sump	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The sump serves the east and center clarifier returned activated sludge flow and filtrate from the filter press.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
N/A	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1973	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
8525 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
60,000	525,600,000	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	5.54E-04	1.21E-03	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		



	PPH	TPY	
METHANOL	4.15E-05	9.08E-05	
METHYL METHACRYLATE	1.16E-07	2.54E-07	
TOLUENE	1.80E-07	3.94E-07	
FORMALDEHYDE	1.68E-05	3.67E-05	
ETHYL ACRYLATE	3.67E-08	8.04E-08	
ACRYLIC ACID	5.70E-11	1.25E-10	
HEXANE	2.16E-12	4.74E-12	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b><u>Applicable Requirements</u></b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> X Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
None			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

ATTACHMENT E - Emission Unit Form			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P216	WWTP Filter Aid Slurry Tank	P216C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Filter aid material is mixed with the biosolids in the filter aid slurry tank to enhance the overall dewatering and solids removal efficiency of the filter press. Filter aid slurry is prepared in batches by mixing the filter aid material with water. The slurry is continuously agitated to prevent the filter aid material from settling out. The filter aid slurry tank is a carbon steel vertical tank.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Industrial Alloy Fabricators	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1995	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
5000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
1050	1,825,000	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	2.31E-03	1.01E-02	
Particulate Matter (PM <sub>10</sub> )	1.53E-02	6.69E-02	
Total Particulate Matter (TSP)	3.23E-02	1.41E-01	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>	
	PPH	TPY
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>		
AP42 Calculations		
<b><i>Applicable Requirements</i></b>		
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.		
<u>See Attached List for all Applicable Requirements.</u>		
<input checked="" type="checkbox"/> Permit Shield		
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )		
None		
<b>Are you in compliance with all applicable requirements for this emission unit?</b>		<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .		

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P218	WWTP Dewatering Sump	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The dewatering system is used to separate water from solids that have been collected in the plant or to discharge non-routine wastewaters. Trucks are emptied into the system to a sump and pumped to the diversion tank to hold until it can be pumped to the equalization tank to feed to the WWTP.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
N/A	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A		N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
5280 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
100	876,000	8760 hr/yr	
gallons per minute	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	5.54E-04	1.21E-03	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
METHANOL	4.15E-05	9.08E-05	
METHYL METHACRYLATE	1.16E-07	2.54E-07	
TOLUENE	1.80E-07	3.94E-07	
FORMALDEHYDE	1.68E-05	3.67E-05	
ETHYL ACRYLATE	3.67E-08	8.04E-08	
ACRYLIC ACID	5.70E-11	1.25E-10	
HEXANE	2.16E-12	4.74E-12	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
Water9 v.3			
<b><u>Applicable Requirements</u></b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> X Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
None			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P302	B12 Parts Washer	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Solvent degreaser unit which can work in either manual or automatic kept at ambient temperature and pressure.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Safety Kleen	81	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	mid 1980s	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
80 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
80	4160	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.28	0.20	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Records of maintenances and any testing on this emission unit will be kept for a period of not less than 5 years. When required, test method ASTM D323-72 will be used to measure the solvent true vapor pressure.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P303	Bead Blasting Unit	P303C	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The bead blast cabinet is designed to remove rust, scale, burr and other unwanted surface agents. The cabinet is a high efficiency, 2.0 cubic foot capacity ASME coded pressure vessel. The cabinet is 14-gauge steel with double walled doors. The cabinet is fitted with a dry filter dust collection unit which captures dust in a series of tubular cloth filters.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Zero Industries	BNP-220	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2003	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
900 cfm air flow			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
54,000	78,840,000	8760 hr/yr	
cf air per hour	cf air per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.11	0.08	
Particulate Matter (PM <sub>10</sub> )	0.16	0.11	
Total Particulate Matter (TSP)	0.16	0.11	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		



	PPH	TPY
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Manufacturer data		
<b><i>Applicable Requirements</i></b>		
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.		
<u>See Attached List for all Applicable Requirements.</u>		
<input checked="" type="checkbox"/> Permit Shield		
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )		
None		
Are you in compliance with all applicable requirements for this emission unit?		YES
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .		

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P304	Boiler Overhaul Parts Washer	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Solvent degreaser unit which can work in either manual or automatic kept at ambient temperature and pressure.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Safety Kleen	81	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	mid 1980s	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
80 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
80	4160	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.28	0.20	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Records of maintenances and any testing on this emission unit will be kept for a period of not less than 5 years. When required, test method ASTM D323-72 will be used to measure the solvent true vapor pressure.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P505	Diesel Fuel Storage Tank	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Double walled diesel fuel storage tank			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Hamilton Tanks	F-921	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2008	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
3,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
17	1095000	8760 hr/yr	
gallons per minute	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	8.45E-04	2.77E-03	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Tanks 4.09d program			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
None			
Are you in compliance with all applicable requirements for this emission unit?			YES
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P506	Gasoline Storage Tank	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Double walled gasoline fuel storage tank			
<b>Manufacturer:</b>			
Highlander Tank	<b>Model number:</b>		<b>Serial number:</b>
	MH5086-1		N/A
<b>Construction date:</b>		<b>Installation date:</b>	
4/26/13		2016	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>		<b>Modification date(s):</b>	
1,000 gallons		N/A	
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
900	365000	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	1.23E-01	4.41E-01	
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Tanks 4.09d program		
<b>Applicable Requirements</b>		
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.		
<u>See Attached List for all Applicable Requirements.</u>		
<input checked="" type="checkbox"/> Permit Shield		
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )		
None		
Are you in compliance with all applicable requirements for this emission unit?		YES
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .		

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P835	Horizontal Sulfuric Acid Tank	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Emission point P835 is a horizontal sulfuric acid tank with a capacity of 11,600 gallons. The tank is equipped with a nitrogen bubbler that operates at approximately 5 scf/hr.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Sistersville Tank Works	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1997	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
11,600 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
138	1,206,400	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		



	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Sulfuric Acid	2.57E-04	1.12E-03	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
EPA745-R-97-007 Table 1 - EPA Guidance Document			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
Visible emissions observation will be conducted once per month. Records of the visible emissions observations, monthly tank throughput, and emissions will be maintained for a period of no less than five years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P836	Vertical Sulfuric Acid Tank	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
Emission point P835 is a horizontal sulfuric acid tank with a capacity of 17,600 gallons. The tank is equipped with a nitrogen bubbler that operates at approximately 5 scf/hr.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Sistersville Tank Works	N/A	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	1988	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
17,600 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
209	1,830,400	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
Sulfuric Acid	3.89E-04	1.71E-03	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
EPA745-R-97-007 Table 1 - EPA Guidance Document			
<b><i>Applicable Requirements</i></b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
Visible emissions observation will be conducted once per month. Records of the visible emissions observations, monthly tank throughput, and emissions will be maintained for a period of no less than five years.			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P901	B344 #8 CAC Cooling Tower	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The P901 cooling tower is a induced draft tower with a maximum throughput of 245 gallons per minute. The tower is designed to reject 2.4 million BTU per hour.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Ingersol Rand	ACE-2DP5-2	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2000	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
2.4 mmBTU per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
14700	128,772,000	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.28	1.22	
Particulate Matter (PM <sub>10</sub> )	0.28	1.22	
Total Particulate Matter (TSP)	0.28	1.22	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
Chlorine	5.00E-05	2.19E-04	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors and Equations			
<b>Applicable Requirements</b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
None			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P902	B327 #7CAC/B156 #9 IR Cooling Tower	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The P902 cooling tower is a induced draft tower with a maximum throughput of 440 gallons per minute. The tower is designed to reject 4.3 million BTU per hour.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Ingersol Rand	ACE-3EN6-2	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2000	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
4.3 mmBTU per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
26400	231,264,000	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.50	2.20	
Particulate Matter (PM <sub>10</sub> )	0.50	2.20	
Total Particulate Matter (TSP)	0.50	2.20	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
Chlorine	8.98E-05	3.93E-04	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors and Equations			
<b>Applicable Requirements</b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
None			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P904	B328 #10 IR Cooling Tower	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The P904 cooling tower is a induced draft tower with a maximum throughput of 378 gallons per minute. The tower is designed to reject 3.7 million BTU per hour.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Ingersol Rand	ACE-3EN4-2	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2000	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
3.7 mmBTU per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
22680	198,676,800	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.43	1.89	
Particulate Matter (PM <sub>10</sub> )	0.43	1.89	
Total Particulate Matter (TSP)	0.43	1.89	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		



	PPH	TPY	
Chlorine	7.71E-05	3.38E-04	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors and Equations			
<b>Applicable Requirements</b>			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
<u>See Attached List for all Applicable Requirements.</u>			
<input checked="" type="checkbox"/> Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. ( <i>Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.</i> )			
None			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			

<b>ATTACHMENT E - Emission Unit Form</b>			
<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>	
P906	B206 #11 IR Cooling Tower	None	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>			
The P906 cooling tower is a induced draft tower with a maximum throughput of 193 gallons per minute. The tower is designed to reject 1.9 million BTU per hour.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
Ingersol Rand	ACE-2EQ3-2	N/A	
<b>Construction date:</b>	<b>Installation date:</b>	<b>Modification date(s):</b>	
N/A	2000	N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b>			
1.9 mmBTU per hour			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b>	
11580	101,440,800	8760 hr/yr	
gallons per hour	gallons per year		
<b>Does this emission unit combust fuel?</b>		<b>If yes, is it fired direct or indirect?</b>	
NO		N/A	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
N/A		N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
N/A	N/A	N/A	N/A
<b>Emissions Data</b>			
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>		
	<b>PPH</b>	<b>TPY</b>	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>x</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )	0.22	0.96	
Particulate Matter (PM <sub>10</sub> )	0.22	0.96	
Total Particulate Matter (TSP)	0.22	0.96	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>		

	PPH	TPY	
Chlorine	3.94E-05	1.73E-04	
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>		
	PPH	TPY	
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>			
AP-42 Emission Factors and Equations			
<b><i>Applicable Requirements</i></b>			
<b>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</b>			
<b><u>See Attached List for all Applicable Requirements.</u></b>			
<input checked="" type="checkbox"/> Permit Shield			
<b>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</b>			
None			
<b>Are you in compliance with all applicable requirements for this emission unit?</b>			<b>YES</b>
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .			



## **Attachment G – Air Pollution Control Device Sheets**

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P31C	<b>List all emission units associated with this control device.</b> P31	
<b>Manufacturer:</b> Low NOx Burners: Coen Leann Burner Controls: ABB	<b>Model number:</b> Low NOx Burners: 695 DAF Lean Burner: Infi-90 DCS	<b>Installation date:</b> 1989

**Type of Air Pollution Control Device:**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Baghouse/Fabric Filter               | <input type="checkbox"/> Venturi Scrubber                     | <input type="checkbox"/> Multicyclone  |
| <input type="checkbox"/> Carbon Bed Adsor                     | <input type="checkbox"/> Packed Tower Scrubber                | <input type="checkbox"/> Single Cyclone  |
| <input type="checkbox"/> Carbon Drum(s)                       | <input type="checkbox"/> Other Wet Scrubber                   | <input type="checkbox"/> Cyclone Bank  |
| <input type="checkbox"/> Catalytic Incinerator                | <input type="checkbox"/> Condenser                            | <input type="checkbox"/> Settling Chamber  |
| <input type="checkbox"/> Thermal Incinerator                  | <input type="checkbox"/> Flare                                | <input checked="" type="checkbox"/> Other (describe) Low NOx generation burners, lean burner controls, and flue gas recirculation controlled with firing rate_____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |  |

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Nitrogen Oxides	NA	NA

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Lean burner control system is designed to operate the equipment in the most efficient and logical sequence. Flue gas recirculation is employed to reduce NOx emissions. A controlled amount of flue gas is induced through ductwork from the economizer out to the FD fan inlet and mixed with air entering the furnace. The DCS regulates a damper in the FCR ductwork to optimize recirculation flow according to steam demand. The maximum recirculation rate is 27%. The burners use a distributed air flow which creates two paths for air flow, one through louvers at the outer ring of the burner throat and the other through a spinner in the center of the burner throat. The design attains low NOx emissions without compromising flame shape or length.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** \_\_\_ Yes \_\_\_X\_ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

NOx continuous emissions monitor.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P102C	<b>List all emission units associated with this control device.</b> P02	
<b>Manufacturer:</b> Dust Collector: Prat-Daniel Corp Bag House: Standard Havens	<b>Model number:</b> Dust Collector: 6IH-15 x 11-152 Bag House: 35-5C	<b>Installation date:</b> 1947

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Single stage dust collector followed by a baghouse. The dust collector has 152 tubs and receives up to 25,000 acfm of flue gas at 350 degrees F. The baghouse has 7350 square feet of active filter area with an air to cloth ratio of 4.28. The baghouse is comprised of 490 heavy duty woven fiberglass substrate bags with expanded polytetrafluoroethylene membrane finish arranged in one row with five compartments. Each bag is 6.25" diameter and 9' long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Boiler is regulated under 40 CFR 63 Subpart DDDDD (Boiler MACT)



**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Continuous opacity monitoring system (COMS)

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P103C	<b>List all emission units associated with this control device.</b> P03	
<b>Manufacturer:</b> Dust Collector: Prat-Daniel Corp Bag House: Standard Havens	<b>Model number:</b> Dust Collector: 6UP #10-200 Bag House: 35-5C	<b>Installation date:</b> 1957

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Single stage dust collector followed by a baghouse. The dust collector has 200 tubs and receives up to 45,000 acfm of flue gas at 350 degrees F. The baghouse has 12,600 square feet of active filter area with an air to cloth ratio of 4.4. The baghouse is comprised of 840 heavy duty woven fiberglass substrate bags with expanded polytetrafluoroethylene membrane finish arranged in two rows with each containing 5 compartments. Each bag is 6.25" diameter and 9' long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Boiler is regulated under 40 CFR 63 Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Continuous opacity monitoring system (COMS)

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P104C	<b>List all emission units associated with this control device.</b> P04	
<b>Manufacturer:</b> Dust Collector: Aerotec Industries Bag House: Bundy Environmental	<b>Model number:</b> Dust Collector: 6UP #10-236 Bag House: 4x255-13	<b>Installation date:</b> 1959

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Single stage dust collector followed by a baghouse. The dust collector has 225 tubs and receives up to 63,000 acfm of flue gas at 350 degrees F. The baghouse has 20,818 square feet of active filter area with an air to cloth ratio of 3.05. The baghouse is comprised of 1020 heavy duty woven fiberglass substrate bags with expanded polytetrafluoroethylene membrane finish arranged in a single row with 4 compartments.. Each bag is 6.25" diameter and 13' long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Boiler is regulated under 40 CFR 63 Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Continuous opacity monitoring system (COMS)

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P105C	<b>List all emission units associated with this control device.</b> P05	
<b>Manufacturer:</b> Dust Collector: Aerotec Industries Bag House: Bundy Environmental	<b>Model number:</b> Dust Collector: 6MPCD Bag House: 6x255-13	<b>Installation date:</b> 1963

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Single stage dust collector followed by a baghouse. The dust collector has 312 tubs and receives up to 95,000 acfm of flue gas at 350 degrees F. The baghouse has 31,227 square feet of active filter area with an air to cloth ratio of 3.04. The baghouse is comprised of 1530 heavy duty woven fiberglass substrate bags with expanded polytetrafluoroethylene membrane finish arranged in two rows with 3 compartments each. Each bag is 6.25" diameter and 13' long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Boiler is regulated under 40 CFR 63 Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Continuous opacity monitoring system (COMS)

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P106C	<b>List all emission units associated with this control device.</b> P06	
<b>Manufacturer:</b> Dust Collector: Aerotec Industries Bag House: Bundy Environmental	<b>Model number:</b> Dust Collector: 6MPCD Bag House: 8x255-13	<b>Installation date:</b> 1965

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Single stage dust collector followed by a baghouse. The dust collector has 420 tubs and receives up to 126,000 acfm of flue gas at 350 degrees F. The baghouse has 41,636 square feet of active filter area with an air to cloth ratio of 3.08. The baghouse is comprised of 2040 heavy duty woven fiberglass substrate bags with expanded polytetrafluoroethylene membrane finish arranged in two rows with 4 compartments each. Each bag is 6.25" diameter and 13' long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Boiler is regulated under 40 CFR 63 Subpart DDDDD (Boiler MACT)



**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Continuous opacity monitoring system (COMS)

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P107C	<b>List all emission units associated with this control device.</b> P107	
<b>Manufacturer:</b> United Conveyor Corporation	<b>Model number:</b>	<b>Installation date:</b> 1947

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (Describe) Separators_____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Bottom ash is conveyed from the ash pit by a 100 hp blower to the separator which removes the majority of the bottom ash from the air stream. Any remaining fine ash is then removed by the bag filter located next to the separator. The conveying air is then discharged to the atmosphere as it passes through the blower. The bag filter has 69 bags which are 7" diameter and 69.5" long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Daily area walkthroughs.

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P114C	<b>List all emission units associated with this control device.</b> P114	
<b>Manufacturer:</b> United Conveyor Corporation	<b>Model number:</b> 84-W-96	<b>Installation date:</b> 1974

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) Separator_____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

The separator removes the coarser ash from the conveying air and then the baghouse filters the remaining fine ash. The baghouse cloth area is 979 square feet containing 84 filter bags that are 96" long.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Daily area walkthroughs.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P130C	<b>List all emission units associated with this control device.</b> P130	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b> 256	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.9%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Collector equipped with an exhaust fan, cartridge dust collector, and collecting hopper. The hopper capacity is 5 cubic feet. The filter area is 180 square feet with a dust capture velocity of 200 FPM. The exhaust fan is 805 CFM and 1.5 HP.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Visible emissions monitoring during filling of silos.

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P131C	<b>List all emission units associated with this control device.</b> P131	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b> 256	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.9%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Collector equipped with an exhaust fan, cartridge dust collector, and collecting hopper. The hopper capacity is 5 cubic feet. The filter area is 180 square feet with a dust capture velocity of 200 FPM. The exhaust fan is 805 CFM and 1.5 HP.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.



**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Visible emissions monitoring during filling of silos.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P202C	<b>List all emission units associated with this control device.</b> P02	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b>	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Baghouse/Fabric Filter               | <input type="checkbox"/> Venturi Scrubber                     | <input type="checkbox"/> Multicyclone   |
| <input type="checkbox"/> Carbon Bed Adsor                     | <input type="checkbox"/> Packed Tower Scrubber                | <input type="checkbox"/> Single Cyclone   |
| <input type="checkbox"/> Carbon Drum(s)                       | <input type="checkbox"/> Other Wet Scrubber                   | <input type="checkbox"/> Cyclone Bank   |
| <input type="checkbox"/> Catalytic Incinerator                | <input type="checkbox"/> Condenser                            | <input type="checkbox"/> Settling Chamber                                       |
| <input type="checkbox"/> Thermal Incinerator                  | <input type="checkbox"/> Flare                                | <input checked="" type="checkbox"/> Other (describe) Dry sorbent injection_____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |   |

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Hydrochloric Acid	99.0%	80.0%
Mercury	99.0%	95.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Hydrated lime is injected into the combustion gas line at a controlled rate based on steam production. The lime absorbs the contaminants in the air stream and is then collected in the baghouse.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Sorbent injection systems for boilers are regulated under 40 CFR Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Sorbent injection rate. Stack testing.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P203C	<b>List all emission units associated with this control device.</b> P03	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b>	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) Dry sorbent injection_____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Hydrochloric Acid	99.0%	80.0%
Mercury	99.0%	95.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Hydrated lime is injected into the combustion gas line at a controlled rate based on steam production. The lime absorbs the contaminants in the air stream and is then collected in the baghouse.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Sorbent injection systems for boilers are regulated under 40 CFR Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Sorbent injection rate. Stack testing.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P204C	<b>List all emission units associated with this control device.</b> P04	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b>	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Baghouse/Fabric Filter               | <input type="checkbox"/> Venturi Scrubber                     | <input type="checkbox"/> Multicyclone   |
| <input type="checkbox"/> Carbon Bed Adsor                     | <input type="checkbox"/> Packed Tower Scrubber                | <input type="checkbox"/> Single Cyclone   |
| <input type="checkbox"/> Carbon Drum(s)                       | <input type="checkbox"/> Other Wet Scrubber                   | <input type="checkbox"/> Cyclone Bank   |
| <input type="checkbox"/> Catalytic Incinerator                | <input type="checkbox"/> Condenser                            | <input type="checkbox"/> Settling Chamber                                       |
| <input type="checkbox"/> Thermal Incinerator                  | <input type="checkbox"/> Flare                                | <input checked="" type="checkbox"/> Other (describe) Dry sorbent injection_____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |   |

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Hydrochloric Acid	99.0%	80.0%
Mercury	99.0%	95.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Hydrated lime is injected into the combustion gas line at a controlled rate based on steam production. The lime absorbs the contaminants in the air stream and is then collected in the baghouse.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Sorbent injection systems for boilers are regulated under 40 CFR Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Sorbent injection rate. Stack testing.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P205C	<b>List all emission units associated with this control device.</b> P05	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b>	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) Dry sorbent injection_____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Hydrochloric Acid	99.0%	80.0%
Mercury	99.0%	95.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Hydrated lime is injected into the combustion gas line at a controlled rate based on steam production. The lime absorbs the contaminants in the air stream and is then collected in the baghouse.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Sorbent injection systems for boilers are regulated under 40 CFR Subpart DDDDD (Boiler MACT)



**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Sorbent injection rate. Stack testing.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P206C	<b>List all emission units associated with this control device.</b> P06	
<b>Manufacturer:</b> Nol-Tec	<b>Model number:</b>	<b>Installation date:</b> 2007

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other (describe) Dry sorbent injection_____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Hydrochloric Acid	99.0%	80.0%
Mercury	99.0%	95.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Hydrated lime is injected into the combustion gas line at a controlled rate based on steam production. The lime absorbs the contaminants in the air stream and is then collected in the baghouse.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Sorbent injection systems for boilers are regulated under 40 CFR Subpart DDDDD (Boiler MACT)

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Sorbent injection rate. Stack testing.

### ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P216C	<b>List all emission units associated with this control device.</b> P216	
<b>Manufacturer:</b> Donaldson Company	<b>Model number:</b> 64	<b>Installation date:</b> 1995

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Cabinet dust collector with 24 cotton sateen envelope style bags which have a filter area of 60 square feet. The filter pack is 21.75" x 18.88" x 9.62". In addition to the bag filter, there is a HEPA panel filter. The collector is operated at ambient temperature and pressure.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Quarterly inspections.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> P303C	<b>List all emission units associated with this control device.</b> P303	
<b>Manufacturer:</b> Checker Industries	<b>Model number:</b> BNP-220-900DF	<b>Installation date:</b> 2003

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multicyclone
<input type="checkbox"/> Carbon Bed Adsor	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	99.0%	99.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

The collector consists of 40 tubular cotton sateen dust tubes housed in a steel cabinet with a manual shaker arm. Each tube has 5 square feet of filtering surface for a total of 200 square feet of filtering area. The collector is rated at 900 CFM. The unit is operated at ambient temperature and pressure.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Potential emissions are less than levels requiring CAM plans.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Maintenance of unit per manufacturer's recommendations.





## **Attachment H – CAM Rules Applicability**

## ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

### CAM APPLICABILITY DETERMINATION

- 1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): ☐ YES ☒ NO
- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;
- LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:**
- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
  - Stratospheric Ozone Protection Requirements.
  - Acid Rain Program Requirements.
  - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
  - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
- d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
- e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

### BASIS OF CAM SUBMITTAL

- 2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:
- ☐ **RENEWAL APPLICATION.** **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.
- ☐ **INITIAL APPLICATION** (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.
- ☐ **SIGNIFICANT MODIFICATION TO LARGE PSEUs.** **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, **Only** address the appropriate monitoring requirements affected by the significant modification.

**3) <sup>a</sup> BACKGROUND DATA AND INFORMATION**

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	<sup>b</sup> EMISSION LIMITATION or STANDARD	<sup>c</sup> MONITORING REQUIREMENT
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

<sup>a</sup> If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

<sup>b</sup> Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

<sup>c</sup> Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

<b>CAM MONITORING APPROACH CRITERIA</b>			
Complete this section for <b><u>EACH</u></b> PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for <b><u>EACH</u></b> indicator selected for <b><u>EACH</u></b> PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.			
<b>4a) PSEU Designation:</b>	<b>4b) Pollutant:</b>	<b>4c) <sup>a</sup> Indicator No. 1:</b>	<b>4d) <sup>a</sup> Indicator No. 2:</b>
<b>5a) GENERAL CRITERIA</b> Describe the <u>MONITORING APPROACH</u> used to measure the indicators:			
<sup>b</sup> Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		.	
<b>5b) PERFORMANCE CRITERIA</b> Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		.	
<sup>c</sup> For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:			
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		.	
<sup>d</sup> Provide the <u>MONITORING FREQUENCY</u> :			
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:			
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:			

<sup>a</sup> Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

<sup>b</sup> Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

<sup>c</sup> The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

<sup>d</sup> Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

### ***RATIONALE AND JUSTIFICATION***

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of **EACH** indicator and monitoring approach and **EACH** indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:

6b) Regulated Air Pollutant:

7) **INDICATORS AND THE MONITORING APPROACH**: Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

8) **INDICATOR RANGES**: Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how **EACH** indicator range was selected by either a **COMPLIANCE OR PERFORMANCE TEST**, a **TEST PLAN AND SCHEDULE**, or by **ENGINEERING ASSESSMENTS**. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- **COMPLIANCE OR PERFORMANCE TEST** (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall **INCLUDE** a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- **TEST PLAN AND SCHEDULE** (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall **INCLUDE** the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- **ENGINEERING ASSESSMENTS** (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall **INCLUDE** documentation demonstrating that compliance testing is not required to establish the indicator range.

**RATIONALE AND JUSTIFICATION:**



## **Supplemental Information – Title V Renewal Application**





## APPENDIX A – SITE 2A Compliance Plan

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

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

1. Facility Information

Facility Name: Chemours Washington Works

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

Shipping Address: 8480 DuPont Road  
Washington, WV 26181

Facility Contact: Alison Crane, Sr. Environmental Control Consultant – (304) 863-4448

2. Facility Description

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

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

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

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

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

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

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

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

### 3. Regulatory Applicability

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

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

### 4. Allowable Emission Rates for Individual Stacks

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

Per 45 CSR 2, 4.2, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Director. Attachment 1 provides details of the emission calculations and the registered stack emission rates.

Table 1 provides a listing of each boiler source, fuel type used, design heat input, stack discharge source, the calculated allowable stack particulate emissions and the registered allocated stack particulate emissions limits. The registered allocated stack particulate emissions limits reflect baseline emission testing that was conducted during 2001-02 and approved by the WV DAQ on December 13, 2002.

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

### 5. Monitoring Plan

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

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

#### Periodic Weight Emission Testing

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

#### Control of Fugitive Particulate Matter

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

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

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

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

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

### 6. Start-Ups, Shutdowns, and Malfunctions

The visible emission standards per 45 CSR 2 applies at all times except during start-ups, shutdowns, and malfunctions. Operating records document the occurrence of these events. In addition, per 45 CSR 2, 9.1, Chemours Washington Works is required to maintain and operate

any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

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

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

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

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

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

## 7. Recordkeeping

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

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

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

Boiler #8 Natural Gas Data (per Section 7.1.a.1)

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

As per Section 7.1.b, records of relevant monitoring data and support information are maintained on-site for at least five years. Records to be retained include calibration and maintenance records, data recordings for continuous monitoring instrumentation, shift logs, emission observation forms, opacity excursion reports, and copies of all state-submitted reports. In addition, electronic process

monitoring data is immediately available for the past two years. Data generated prior to the two year window can be retrieved from storage in a reasonable amount of time.

## 8. Reporting

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

- Quarterly preparation of a “Monitoring Summary Report”
- Quarterly preparation of an “Excursion and Monitoring Plan Performance Report”

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

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

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

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

- Total number of hours operated
- Duration of excess emissions during startup and shutdown
- Duration of excess emissions due to other causes

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

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

\*Permitted limit per Permit R14-14

# Attachment 1

## Supporting Calculation Documentation (Power and Services Boilers)

### Regulation 2A Appendix B Site Registration Forms



## Power and Services Boilers

### Calculation of Allowable Emission Rates

#### ***Regulation 2A Registration Form Table 2***

##### Type 'b' Units

Total design heat input = 193.8 mmBTU/hr

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

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

##### Type 'c' Units

Total design heat input = 705.2 mmBTU/hr

45CSR2 Table 45-2:

Allowable emission rate for 600 mmBTU/hr = 54 lbs/hr

Allowable emission rate for 3333 mmBTU/hr = 300 lbs/hr

Linearly interpolate between 600 and 3333 mmBTU/hr to determine the corresponding particulate emission rate for 705.2 mmBTU/hr

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

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

#### ***Regulation 2A Registration Form Table 3***

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

Stack 1 DHI of all units = 64.2 mmBTU/hr

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

Stack 2 DHI of all units = 219 mmBTU/hr

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

Stack 3 DHI of all units = 422 mmBTU/hr

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

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

Stack 4 DHI of all units = 181 mmBTU/hr

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

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

#### Registered Stack Emission Rates for Power & Services Coal Fired Boilers

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

## Chemours Regulation 2A Registration Forms

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

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

Table 2 - Weight Emission Limits for Similar Units

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

<sup>1</sup> If the calculated weight emission limit for Type 'a' units is greater than 1200 lbs/hr, then 1200 lbs/hr is the limit<sup>2</sup> If the calculated weight emission limit for Type 'b' units is greater than 600 lbs/hr, then 600 lbs/hr is the limit

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

Table 3 - Registration of Standard Individual Stack Emission Rates

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

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

## Sources: Power &amp; Services Boilers 2 - 6

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	P02	17.22
476	P03/P04	27.25
477	P05/P06	19
Sum of Alternative Stack Emission Rates (lb/hr) <sup>1</sup>		63.47

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

## APPENDIX B – SITE 10A Compliance Plan

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

1. Facility Information

Facility Name: Chemours Washington Works

Mailing Address:

Post Office Box 1217

Parkersburg, WV 26102-1217

Shipping Address: Route

892 South Washington, WV

26181

Facility Contact:

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

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

2. Facility Description

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

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

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

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

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

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

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

### 3. Allowable Emission Rates for Individual Stacks

Table 1 lists each source and the potential to emit. Per 45 CSR 10, 3.1.e, for Priority II regions and Type 'b' and Type 'c' fuel burning units, sulfur dioxide emissions are limited to "the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour." Attachment 1 ("Appendix B") provides the details of the potential to emit calculations. The potential-to-emit calculations provide the maximum sulfur dioxide emissions allowed for each coal-fired boiler, regardless of firing rate. Thus, the sulfur content of a particular coal shipment could be greater than that defined by 45 CSR 10A, 2.2 as long as the combination of firing rate and coal sulfur content resulted in SO<sub>2</sub> emissions as allowed under 45 CSR 10, 3.1.e, 3.4.a, and 3.8.

Regulation 10 section 3.4 provides for the operation of a unit or units to exceed the calculated SO<sub>2</sub> emission rate by a maximum of 25% (on a per stack basis) providing that the allowable rate "cap" for the sum of all such stacks at the site is not exceeded on a per day basis. This variance provides for emission rates greater than the MDHI \* 3.1 on a stack or multiple stacks providing the other units are operated at an emission rate not exceeding the sum of the allowable rates for all such units/stacks at the site. This circumstance would require adjustment of the operating rates of the other site boilers in order to be in ongoing compliance with the site cap total allowable rate.

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

### 4. 45 CSR 10 Monitoring Plan

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

4.a Baseline Weight Emission Testing (45 CSR 10A, 5.1.a) – Using a contract testing firm, Chemours performed baseline SO<sub>2</sub> weight emission testing on the #2, #3, #4, #5, and #6 coal-fired boilers within 12 months of the effective date for 45 CSR 10A. The test protocol was conducted following the methods described in 40 CFR Part 60, Appendix A. The boiler discharges

were sampled following EPA Methods 1-6 to determine the mass emission rate of sulfur dioxide. The Method 5 particulate train was modified to conduct the SO<sub>2</sub> analysis simultaneously by replacing the impinger water with a 3% peroxide solution. The impinger solution was analyzed for sulfate content by an outside laboratory. The test protocol was submitted to WV DAQ for approval.

In conjunction with the baseline weight emission testing, the coal was characterized for its heat, sulfur, volatile, fixed carbon, ash, and moisture content. The operating variables for each boiler (over fire air header pressure, flue gas oxygen content) was recorded and correlated to each specific test period. During testing, each boiler was operated at a rate greater than or equal to 80% of its design heat input. 45CSR2 Appendix, 5.1 states that, "All compliance test runs, which are to be included in the test result for a unit or a specified number of units, shall be conducted while the unit or group of units is operated at or above the normal maximum operating load for the specified unit or group of units; while fuel or combinations of fuel representative of normal operation are being burned; and under such other relevant conditions as the Director may specify based on representative performance of the specified units." Since the particulate and SO<sub>2</sub> weight emission testing was conducted simultaneously and review of operating records shows that 80% of the design heat input has been about the normal maximum operating load of the boilers, this operating level was used during the testing.

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

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

If Chemours is able to contractually secure long-term coal supplies containing less than 90% of the sulfur content as calculated from the "factor", the DHI, and the BTU value of the coal, Chemours will notify DAQ of a change in the testing frequency to once every 5 years. Such coal supplies would have Table 2 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<sub>2</sub> per million BTU design heat input, 2.11% is the maximum sulfur content of a coal that could be burned at the design heat input. In order to qualify for weight emission testing once every five years, the maximum sulfur content of any coal shipment would be 1.899%. Attachment 2 shows the calculations supporting columns 1 through 5 of Table 2.

4.c Coal Analysis – Per 45 CSR 10A, 6.1.c, coal monitoring requirements derive from burning fuels with sulfur contents "that equate[s] to an SO<sub>2</sub> emission rate greater than or equal to 90% of the rate, calculated as the product of the TDHI and applicable factor". Table 3, columns 6, 7, and 8 shows the interrelationship among operating rate as a percent of TDHI, coal heat value, and sulfur content of the coal. Column 8 shows the percent sulfur in the coal that triggers the requirement for either continuous emission monitoring systems (CEMS) for SO<sub>2</sub> or daily "as burned" fuel analyses. For operating rates and corresponding sulfur contents less than those



listed in Column 8, the sulfur analysis requirement is "per shipment".

Chemours expects to burn coal blends with sulfur contents between 1.8 and 2.25% sulfur. Historically, normal maximum operating rates have been approximately 80-85% of DHI. Thus, depending upon relative proportions of low- and medium-sulfur coal in the blend at any given time, Chemours might be covered by the "daily as burned" or "per shipment" sulfur analysis requirements. To satisfy both situations and to know at all times what the sulfur content is of the blended coal, Chemours will utilize one of all the following options:

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

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

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

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

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

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

sulfur, volatile matter, fixed carbon, ash, and moisture content. These results will be recorded and kept for a period of 5 years.

**Option 3:** Alternatively, if 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 recorded and kept for a period of 5 years.

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

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

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

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

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

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

The maximum and minimum values 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<sub>2</sub> emissions cap, for the five coal-fired boilers as a group.

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

45CSR10, 9.1 states, “Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.” If the above situation occurs (e.g., due to supply or transportation problems with the low sulfur coal now used in the blend) and the operating rate cannot be adjusted downward sufficiently to meet the current SO<sub>2</sub> emissions cap, Chemours will contact the Director to request a variance to the Reg 10/10A provisions. If an extension of the variance is required, DuPont will provide a corrective program.

4.e Records Management - Chemours has tracked the above information in spreadsheet form and developed monthly and annual weighted averages based on the analytical information provided by the suppliers and the amount of coal purchased in a given period. Through a data historian system, information is recorded about date and time of start-up and shutdown as well as information about the furnace operating rates (45 CSR 10A, 7.1.a); this data is available “live” for two years and will be retrievable from data tapes for the 3 previous years. Paper operating logs for the Power House operations and supporting information including relevant instrument calibration records and maintenance records will be retained for 5 years in accordance with the requirements of 45 CSR 10A, 7.1.d.

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

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

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

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

- the magnitude of each excursion, and the date and time, including starting and ending times, of each excursion;
- specific identification of each excursion that occurs during startups, shutdowns, and malfunctions of the facility;
- the nature and cause of any excursion, if known, and the corrective action(s) taken and preventative measures adopted, if any;
- the date and time identifying each period when the data is unavailable, the reason for data unavailability, and the corrective action(s) taken: and
- if no excursions occurred during the quarter or there were no periods of data unavailability, that information will be stated in the report.

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

Table 1

## 45 CSR 10A Monitoring and Recordkeeping Plan

Coal Blend Heat Content =						13618 Btu/lb						
Unit	Stack	DHI (mmBTU/hr)	Factor (lb SO <sub>2</sub> /mmBTU)	Weight Emission Rate (lb SO <sub>2</sub> /hr)	Stack Emissions (lb SO <sub>2</sub> /hr)	% S 2.4%	% S 2.3%	% S 2.2%	% S 2.111%	% S 2.0%	% S 1.9%	% S 1.8%
						Max Heat Rate Input (mmBTU/hr)	Max Heat Rate Input (mmBTU/hr)	Max Heat Rate Input (mmBTU/hr)	Max Heat Rate Input (mmBTU/hr)	Max Heat Rate Input (mmBTU/hr)	Max Heat Rate Input (mmBTU/hr)	Max Heat Rate Input (mmBTU/hr)
P02(B2)475(S1)		64.2	3.1	199.02	199.02	56.46	58.92	61.60	64.19	64.2	64.2	64.2
P03(B3)476(S2)		94	3.1	291.4		82.67	86.27	90.19	93.99	94	94	94
P04(B4)476(S2)		125	3.1	387.5	678.9	109.94	114.72	119.93	124.99	125	125	125
P05(B5)477(S3)		181	3.1	561.1		159.19	166.11	173.66	180.98	181	181	181
P06(B6)477(S3)		241	3.1	747.1	1308.2	211.96	221.17	231.23	240.98	241	241	241
						Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)	Max Steam Production (m lb/hr)
P02(B2)475(S1)						50.9	53.1	55.5	57.8	57.8	57.8	57.8
P03(B3)476(S2)						74.5	77.7	81.3	84.7	84.7	84.7	84.7
P04(B4)476(S2)						99.0	103.3	108.0	112.6	112.6	112.6	112.6
P05(B5)477(S3)						143.4	149.6	156.5	163.0	163.1	163.1	163.1
P06(B6)477(S3)						191.0	199.3	208.3	217.1	217.1	217.1	217.1
coal-fired total						558.8	583.1	609.6	635.3	635.3	635.3	635.3

**Table 2****Triggers for Weight Emission Testing and CEMS or Daily "As Burned" Analysis**

Factor = 3.1 lb SO<sub>2</sub>/mm BTU      Coal-Fired TDHI = 705.2 mm BTU/hr  
 SO<sub>2</sub> Cap = 2186.12 lb SO<sub>2</sub>/hr = 1094.289 lb S/hr

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

Sources: Power &amp; Services Boilers

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

Sources: Power &amp; Services Boilers

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

Sources: Power & Services Boilers

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

Sources: Power & Services Boilers

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

<b>Table 4 - Registration of Alternative Stack Emission Rates</b>		
(A) Stack ID	(B) Identify each unit venting thru stack	(C) Alternative Stack Emission Rate (lb/hr)
<b>Sum of Alternative Stack Emission Rates (lb/hr)<sup>1</sup></b>		<b>N/A</b>

<sup>1</sup> The sum of the Alternative Stack Emission Rates for similar units shall not exceed the Weight Emission Rates for all Similar Units in Table 2, Column D.



**Attachment 2**  
**Example Calculations Supporting Table 3, Columns 1-5**

$$3.1 \text{ lb. SO}_2/\text{mm BTU} \times 705.2 \text{ mm BTU/hr.} = 2186.12 \text{ lb. SO}_2/\text{hr.}$$

$$2186.12 \text{ lb. SO}_2/\text{hr.} \times 32.066 \text{ lb. S}/64.06 \text{ lb. SO}_2 = 1094.289 \text{ lb. S/hr.}$$

**Sulfur Content of Coal:**

$$\frac{3.1 \text{ lb. SO}_2}{\text{mm BTU}} \times \frac{32.066 \text{ lb. S}}{64.06 \text{ lb. SO}_2} \times \frac{12000 \text{ BTU}}{\text{lb. coal}} \times \frac{\text{mm BTU}}{1000000 \text{ BTU}}$$

$$= 0.0186 \text{ lb. S/lb. coal}$$

$$= 1.86\% \text{ S in coal}$$

**Trigger for Annual Weight Emission Testing for SO<sub>2</sub>:**

$$90\% \times \text{S} =$$

$$0.9 \times 1.86\%$$

$$= 1.676\% \text{ S}$$

**Trigger for Once Every Five Year Weight Emission Testing for SO<sub>2</sub>:**

$$50\% \times \text{S} =$$

$$0.5 \times 1.86\%$$

$$= 0.93\% \text{ S}$$



## APPENDIX C – 45 CSR 14 -14 Permit

**Division of Air Quality**

7012 MacCorkle Avenue, South East

Charleston, WV 25304-2943

Telephone Number: (304) 926-3727

Fax Number: (304) 926-3739

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**West Virginia Department of Environmental Protection**

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Bob Wise  
GovernorMichael O. Callaghan  
Secretary**PERMIT TO MODIFY A  
NATURAL GAS FIRED BOILER**

IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL LAW (W. Va. Code §§22-5-1 et seq.), AND REGULATIONS PROMULGATED THEREUNDER, THE FOLLOWING PERMITTEE IS AUTHORIZED TO CONSTRUCT, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, THE SOURCE DESCRIBED BELOW.

This permit supercedes and replaces R13-2160 issued on March 9, 1998.

Name of Permittee: E. I. DuPont de Nemours and Company

Name of Facility: Washington Works

Permit No.: R14-14

Plant ID No.: 10700001

Effective Date of Permit: January 2, 2002

Permit Writer: Steve R. Pursley P.E., Joe R. Kessler

Facility Mailing Address: P.O. Box 1217  
Parkersburg, WV 26102

County: Wood County

Nearest City or Town: Washington, WV

UTM Coordinates: Easting: 442.25 km Northing: 4,346.75 km Zone: 17

Directions to  
Exact Location: The Washington Works facility lies in a well known location 3.25 miles west of the intersection of WV State Route 68 and Route 892 (DuPont Road) on Route 892.

Type of Facility  
or Modification: The submitted application R14-14 is for the removal of the NO<sub>x</sub> limit on a 181.0 MMBtu/hr natural gas-fired boiler that will allow it to operate 8,760 hours/year. The boiler was originally permitted with said NO<sub>x</sub> limit under R13-2160.

THE SOURCE IS SUBJECT TO 45CSR30. THE PERMITTEE HAS THE DUTY TO UPDATE THE FACILITY'S TITLE V (45CSR30) PERMIT APPLICATION TO REFLECT THE CHANGES PERMITTED HEREIN.

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"To use all available resources to protect and restore West Virginia's environment in concert with the needs of present and future generations."

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West Virginia  
Department of  
Environmental Protection

IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

## A. SPECIFIC REQUIREMENTS

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 <sub>x</sub> Burners and Flue Gas Recirculation

2. In accordance with the information filed in Permit Application R14-14, and any amendments or revisions thereto, the boiler identified under A.1 above shall be monitored and operated according to the following conditions:
  - a. Coen Low-NO<sub>x</sub> burners shall be installed, maintained, and operated so as to reduce the formation of NO<sub>x</sub> 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<sub>x</sub>. 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<sub>x</sub> 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.
3. The emission of Nitrogen Oxides (NO<sub>x</sub>) into the atmosphere from the operation from boiler Number 8 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

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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 40CFR60, Subpart Db.

4. Emission rates from the operation of boiler Number 8 shall not exceed the following limits:

Pollutant	pounds/hour <sup>(1)</sup>	tons/year <sup>(2)</sup>
Carbon Monoxide (CO)	15.20	66.59
Oxides of Nitrogen (NO <sub>x</sub> )	18.10	79.28
Total Suspended Particulate (TSP)	1.38	6.03
Particulate Matter less than 10 microns (PM <sub>10</sub> )	1.38	6.03
Sulfur Dioxide (SO <sub>2</sub> )	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<sub>x</sub>, which is a 30-day rolling average limit as defined under A.3.

(2) The annual limits represent a twelve (12) month rolling total limits.

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.
6. Pursuant to 45CSR2, Section 3.1, the permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from boiler number 8 which is greater than ten (10) percent opacity based on a six minute block average. Pursuant to 45CSR2, Section 9.1, the visible emission standards set forth in A.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.
7. To determine compliance with the NO<sub>x</sub> emission limits under **SPECIFIC REQUIREMENTS A.3** and **A.4**, the permittee shall install and utilize a NO<sub>x</sub> continuous emissions monitoring system (CEMS). The NO<sub>x</sub> CEMS shall be installed, operated, and monitored in accordance with the applicable requirements under 40 CFR 60, Subpart Db.

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8. 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 **SPECIFIC REQUIREMENTS A.4** above. Test(s) shall be conducted in accordance with **OTHER REQUIREMENTS B.10** and **B.11** 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.

## B. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of 45CSR2, 45CSR10, 45CSR14, 45CSR16, 45CSR30 and 40 CFR 60, Subpart Db, provided that the permittee shall comply with any more stringent requirements as may be forth under **SPECIFIC REQUIREMENTS**, Section (A) of this permit.

2. The pertinent sections of 45CSR2 applicable to this facility include, but are not limited to, the following:

### §45-2-3.1

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.

### §45-2-4.1

No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

#### §45-2-4.1(b)

For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units; and

### §45-2-8.1(a)

The owner or operator of a fuel burning unit(s) shall demonstrate compliance with section 3 by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9, or a certified continuous opacity monitoring system, as approved by the Director, and section 4 by periodic particulate matter stack testing,

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conducted in accordance with the appropriate test method set forth in the Appendix to this rule or other equivalent EPA approved method approved by the Director. The owner or operator shall conduct such testing at a frequency to be established by the Director.

#### §45-2-8.2(a)

The owner or operator of a fuel burning unit(s) shall monitor compliance with section 3 as set forth in an approved monitoring plan for each emission unit. Such monitoring plan(s) shall include, but not be limited to, one or more of the following: continuous measurement of emissions, monitoring of emission control equipment, periodic parametric monitoring, or such other monitoring as approved by the Director.

#### §45-2-9.1

The visible emission standards set forth in section 3 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.

3. The pertinent sections of 45CSR2A applicable to this facility include, but are not limited to, the following:

#### §45-2a-7.1.a

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 as specified in paragraphs 7.1.a.1 through 7.1.a.6, as applicable.

#### §45-2a-7.1.a.1

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.

#### §45-2a-7.1.b

Records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) 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.

4. The pertinent sections of 45CSR10 applicable to this facility include, but are not limited to, the following:

#### §45-10-3.3.

into No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide the open air from all stacks located at one plant, measured in terms of pounds

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per hour, in excess of the amount determined as follows:

§45-10-3.1.e.

For Type 'b' and Type 'c' fuel burning units, the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

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

§45-14-7.1

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 emissions standard or standard of performance under 40 CFR 60, 61, and 63.

§45-14-7.3

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.

§45-14-18.1.

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:

§45-14-18.1(a)

The permittee, in the petition, describes the reasons for the requested permit transfer and certifies that the subject source is in compliance with all the provisions and requirements of its permit, and

§45-14-18.1(b)

The transferee acknowledges, in writing, that it accepts and will comply with all the requirements, terms, and conditions as contained in the subject permit.

§45-14-18.2.

The Director shall suspend or revoke a permit if, after eighteen (18) months from the date of issuance the holder of the permit cannot provide the Director, at the Director's request, with written proof of a good faith effort that such construction, modification, or relocation has commenced and remains ongoing. Such proof shall be provided not later than thirty (30) days after the Director's request.

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§45-14-18.3.

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.

6. The pertinent sections of 40 CFR 60, Subpart Db, applicable to this facility include, but are not limited to, the following:

§60.40b(a)

The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).

§60.44b(a)

Except as provided under paragraph (k) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following emission limits:

- (1) Natural gas and distillate oil, except (4):

- (i) Low heat release rate, 0.1 lbs NO<sub>x</sub> per million Btu heat input
- (ii) High heat release rate, 0.2 lbs NO<sub>x</sub> per million Btu heat input

§60.44b(h)

For purposes of paragraph (i) of this section, the nitrogen oxide standards under this section apply at all times including periods of startup, shutdown, or malfunction.

§60.44b(i)

Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

§60.46b(a)

The particulate matter emission standards and opacity limits, under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides emission standards under §60.44b apply at all times.

§60.46b(c)

Compliance with the nitrogen oxides emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under

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paragraphs (g) and (h) of this section, as applicable.

§60.46b(e)

(e) To determine compliance with the emission limits for nitrogen oxides required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring nitrogen oxides under §60.48(b).

§60.46b(e)(1)

(1) For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

§60.48b(b)

Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under 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.

§60.48b(c)

The continuous monitoring systems required under paragraph (b) of this section 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.

§60.48b(d)

The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under §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 §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(b). At least 2 data points must be used to calculate each 1-hour average.

§60.48b(e)

The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

§60.48b(e)(1)

For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

§60.48b(e)(2)

For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span Values
Natural gas.....	500 ppm
Oil.....	500 ppm
Coal.....	1,000 ppm
Mixtures.....	$500(x+y)+1,000z$

where:

x is the fraction of total heat input derived from natural gas,

y is the fraction of total heat input derived from oil, and

z is the fraction of total heat input derived from coal.

§60.48b(e)(3)

All span values computed under paragraph (e)(2) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm.

§60.48b(f)

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.

§60.48b(g)

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:

§60.48b(g)(1)

Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section, or

§60.48b(g)(2)

Monitor steam generating unit operating conditions and predict nitrogen

oxides emission rates as specified in a plan submitted pursuant to §60.49b(c).

§60.49b(a)

The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

§60.49b(a)(1)

The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,

§60.49b(a)(2)

If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), (c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i),

§60.49b(a)(3)

The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and,

§60.49b(b)

The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under §60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

§60.49b(c)

The owner or operator of each affected facility subject to the nitrogen oxides standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. The plan shall:

§60.49b(c)(1)

Identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

§60.49b(c)(2)

Include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions;

§60.49b(c)(3)

Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(j).

If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan.

§60.49b(d)

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.

§60.49b(e)

(e) For an affected facility that combusts residual oil and meets the criteria under §60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content on a per calendar quarter basis. The

nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons (IBR see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

§60.49b(f)

For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.

§60.49b(g)

Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

§60.49b(g)(1)

Calendar date.

§60.49b(g)(2)

The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/million Btu heat input) measured or predicted.

§60.49b(g)(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.

§60.49b(g)(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 emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

§60.49b(g)(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.

§60.49b(g)(6)

Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

§60.49b(g)(7)

Identification of "F" factor used for calculations, method of determination,

and type of fuel combusted.

§60.49b(g)(8)

Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

§60.49b(g)(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.

§60.49b(g)(10)

Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix f, Procedure 1.

§60.49b(h)

The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section 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.

§60.49b(h)(1)

Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

§60.49b(h)(2)

Any affected facility that is subject to the nitrogen oxides standard of §60.44b, and that

§60.49b(h)(2)(i)

Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or

§60.49b(h)(2)(ii)

Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

§60.49b(h)(3)

For the purpose of §60.43b, excess emissions are defined as all 6-minute



periods during which the average opacity exceeds the opacity standards under §60.43b(f).

§60.49b(h)(4)

For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under §60.46b(e), which exceeds the applicable emission limits in §60.44b.

§60.49b(o)

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

7. Tests that may be required by the Director to determine compliance with the emission limitations set forth in **SPECIFIC REQUIREMENTS A.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 CFR 60, Appendix A).
  - b. Tests to determine compliance with SO<sub>2</sub> emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 CFR 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 CFR 60, Appendix A.
  - d. Tests to determine compliance with NO<sub>x</sub> emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 CFR 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 CFR 60, Appendix A.
8. 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,

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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.

9. For the purposes of determining compliance with maximum throughput limit set forth in **SPECIFIC REQUIREMENTS A.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 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.
10. For the purposes of determining compliance with the maximum NO<sub>x</sub> emission limit under **SPECIFIC REQUIREMENTS A.3**, the applicant shall maintain and submit records pursuant to 40CFR60, Subpart Db, Section 60.49b, which includes the generation of a new 30-day average NO<sub>x</sub> emission rate calculated at the end of each steam generating unit operating day from the measured NO<sub>x</sub> 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.
11. All notifications and reports required pursuant to 40 CFR 60 under §60.7 shall be forwarded to:

Director  
WVDEP  
Division of Air Quality  
7012 MacCorkle Ave., S.E.  
Charleston, WV 25304

and

Director, Air Protection Division  
US Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103

## C. GENERAL REQUIREMENTS

1. In accordance with 45CSR30 - "Operating Permit Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Director or his/her duly authorized representative.

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2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.
3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2160, R14-14, and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
4. 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 established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Director may specify or approve and shall be filed in a manner acceptable to the Director. The Director, or his/her 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. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Director. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.
5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the Director, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.
6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.
7. The permittee shall notify the Director, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.
8. The permittee shall notify the Director, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.
9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.

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10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
11. On or before July 1st of each calendar year, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Director may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ISSUED BY: \_\_\_\_\_

STEPHANIE R. TIMMERMEYER, DIRECTOR  
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF AIR QUALITY

DATE SIGNED: \_\_\_\_\_

R14-14

E. I. DuPont de Nemours and Company  
Washington Works

## APPENDIX D – Insignificant Units

**Appendix D - Insignificant Sources List**

<b>Emission Unit ID<sup>1</sup></b>	<b>Emission Point ID<sup>1</sup></b>	<b>Emission Unit Description</b>	<b>Year Installed/Modified</b>	<b>Design Capacity</b>	<b>Control Device<sup>1</sup></b>	<b>Reason</b>
P213	480	WWTP Area Sump (caustic)	1973	230 gal	None	Insignificant Activities #55
P216	480	WWTP Sludge Building Vent	1973; press equip. added 1995	N/A	None	Insignificant Activities #56
P216-2	480	WWTP Antifoam Addition Tank	1976	300 gal	None	Insignificant Activities #56
P216-3	480	Filter Press	1995	N/A	None	Insignificant Activities #56
P216-4	480	Biosolids Hold Tank	1995	6,000 gal	None	Insignificant Activities #56
P216-6	480	Flock Tank	1995	100 gal	None	Insignificant Activities #56
P217	480	WWTP – Filter press filtrate tank	1995	600 gal	None	Insignificant Activities #56
P221	482	B327 Biopond NaOCl System	2003; modified 2006	6,500 gal	None	Insignificant Activities #55
P224	P224	WWTP Sodium Hydroxide Storage Tank	1973	11,600 gal	None	Insignificant Activities #55
P230	P231	WWTP Analyzer Shed	2004	N/A	None	Insignificant Activities #59
P401	481	402B Sanitary Waste Primary Clarifier – NE	1956	7,700 gal	None	Insignificant Activities #56
P402	481	402B Sanitary Waste Primary Clarifier – SW	1956	7,700 gal	None	Insignificant Activities #56
P403-1	481	402B NaOCL Injection Chamber	1956	2,000 gal	None	Insignificant Activities #55
P403-2	481	402B NaOCL Contact Chamber	1956	3,500 gal	None	Insignificant Activities #55
P404	481	402B Sanitary Waste Anaerobic Digester	1956	49,858 gal	None	Insignificant Activities #56
P405	482	B311 Gallery Well/402B NaOCl System	2003; modified 2009	2,000 gal	None	Insignificant Activities #55

P406	481	402B Sanitary Waste Sump	1973	4,810 gal	None	Insignificant Activities #55
P407	481	402A Sanitary Waste Lift Station	1956; modified 1990	32,484 gal	None	Insignificant Activities #55
P408	481	Biopond Sanitary Waste Lift Station	1990	2 HP	None	Insignificant Activities #55
P501	485	B236 Hazardous Waste Bldg Sump	1980	10,770 gal	None	Insignificant Activities #55
P502	485	B236 90-Day Tanker Storage Area	N/A	N/A	None	Insignificant Activities #55
P604	P604	Construction Debris	N/A	N/A	None	Insignificant Activities #55
P802	482	B303 Ranney Well NaOCl System	2002; modified 2010	1000 gal	None	Insignificant Activities #55
P806	P806	B330 East Field Corrosion Inhibitor Tank	2004	3,000 gal	None	Insignificant Activities #56
P807	482	B347 East Field/Island Wells NaOCl System	2003; modified 2010	2100 gal	None	Insignificant Activities #55
P808	P808	B357 West Field Corrosion Inhibitor Tank	1996	2,000 gal	None	Insignificant Activities #56
P809	482	B357 West Field Wells NaOCl System	2002; modified 2010	500 gal	None	Insignificant Activities #55
P811	P811	B311 Gallery Corrosion Inhibitor Tank	2003	2,000 gal	None	Insignificant Activities #56
P813	P813	B303 Ranney Corrosion Inhibitor Tank	2004	2,000 gal	None	Insignificant Activities #56
P828	482	B314 River Water NaOCl System	2003; modified 2010	2100 gal	None	Insignificant Activities #55
P830	P830	50% Caustic (Vert) Storage Tank	1960	34,300 gal	None	Insignificant Activities #55
P831	P831	20% Caustic (Hor) Storage Tank #1	1955	8,161 gal	None	Insignificant Activities #55
P832	P832	20% Caustic (Hor) Storage Tank #2	pre 1960	8,161 gal	None	Insignificant Activities #55
P840	P840	B314 Silt Dispersant Storage Tank	1984	3,950 gal	None	Insignificant Activities #56

P841	P841	B301 Boiler Feed Water Scale Inhibitor Storage Tank	mid 1970's	1,500 gal	None	Insignificant Activities #8, #56
P842	P842	B301 Boiler Feed Water Oxygen Scavenger Storage Tank	mid 1970's	1,500 gal	None	Insignificant Activities #8, #56
P901-1	470	B344 #8 CAC Inhibitor Storage Tank	2000	80 gal	None	Insignificant Activities #56
P901-2	470	B344 #8 CAC Biocide Storage Tank	2005	80 gal	None	Insignificant Activities #56
P902-1	471	B327 #7 CAC/B156 #9 IR - Inhibitor Storage Tank	2000	80 gal	None	Insignificant Activities #56
P902-2	471	B327 #7 CAC/B156 #9 IR - Biocide Storage Tank	2005	80 gal	None	Insignificant Activities #56
P904-1	472	B328 #10 IR Inhibitor Storage Tank	2000	80 gal	None	Insignificant Activities #56
P904-2	472	B328 #10 IR Biocide Storage Tank	2005	140 gal	None	Insignificant Activities #56
P906-1	473	B206 #11 IR - Inhibitor Storage Tank	2000	80 gal	None	Insignificant Activities #56
P906-2	473	B206 #11 IR - Biocide Storage Tank	2005	80 gal	None	Insignificant Activities #56
		B325 Sodium Bisulfite Tank	2009	2,100 gal	None	Insignificant Activities #55
		002 Sodium Bisulfite Tank	2009	550 gal	None	Insignificant Activities #55

<sup>1</sup> For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points



## APPENDIX E – Idled Emission Units

**Appendix E - Emission Units Idled**

Emission Unit ID <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
P130E	493	North Sorbent Silo	2007	4546 ft3	P130C
P131E	493	South Sorbent Silo	2007	4546 ft3	P131C
P701	P701	Demin Chiller Cooling Tower	2005	N/A	None
P701-1	P701-1	Oxidizer (Bromine) Storage Tank	2005	80 gal	None
P701-2	P701-2	Dispersant Storage Tank	2005	80 gal	None
P701-3	P701-3	Scale/Corrosion Inhibitor Storage Tank	2005	80 gal	None
P701-4	P701-4	Chilled Water Chemical Pot Feeder	2005	5 gal	None
P843	P843	B301 Coal Dust Suppressant Storage Tank	1990	1000 gal	None

## APPENDIX F – Applicable Requirements Table

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2016 P&S Applicable Requirements.xlsx

## APPENDIX G – Actual Emissions - 2015

	2015			2015
1,1,1-TRICHLOROETHANE	0.0012		Metal HAPs	0.1696
1,2-DIBROMOETHANE	0.0001		Volatile HAPs	10.49
1,2-DICHLOROETHANE	0.0024		Dioxins and Furans	3.58E-08
2,3,7,8-TCDD (TEQe)	0.0000		Cyanide Compounds	1.0708
2,4-DINITROTOLUENE	0.0000		Hydrochloric Acid	230.85
2-CHLOROACETOPHENONE	0.0004		Ammonia	0.5517
ACETALDEHYDE	0.0336		Polycyclic Organic Matter	0.0012
ACETOPHENONE	0.0009			
ACROLEIN	0.0171			
AMMONIA	0.5517	Units are tons per year for each chemical listed.		
ANTIMONY COMPOUNDS	0.0007			
ARSENIC COMPOUNDS	0.0054	2015 Air Emission Invenotry		
BENZENE	0.0770			
BENZYL CHLORIDE	0.0413			
BERYLLIUM COMPOUNDS	0.0022			
BIS(2-ETHYLHEXYL)PHTHALATE	0.0043			
BROMOFORM	0.0023			
BROMOMETHANE	0.0094			
CADMIUM COMPOUNDS	0.0003			
CARBON DIOXIDE	368037			
CARBON DISULFIDE	0.0077			
CARBON MONOXIDE	59.9710			
CHLOROBENZENE	0.0013			
CHLOROETHANE	0.0025			
CHLOROFORM	0.0035			
CHLOROMETHANE	0.0312			
CHROMIUM COMPOUNDS	0.0310			
CHROMIUM VI	0.0047			
COBALT COMPOUNDS	0.0075			
CUMENE	0.0003			
CYANIDE COMPOUNDS	1.0708			
DIMETHYL SULFATE	0.0028			
ETHYL ACRYLATE	0.0007			
ETHYL BENZENE	0.0055			
FORMALDEHYDE	0.4188			
HEXANE	0.3417			
HYDROGEN CHLORIDE	230.8453			
ISOPHORONE	0.0342			
LEAD COMPOUNDS	0.0093			
MANGANESE COMPOUNDS	0.0297			
MERCURY COMPOUNDS	0.0005			
METHANE	40.9649			
METHANOL	3.8934			
METHYL METHACRYLATE	0.3966			
METHYLENE CHLORIDE	0.0171			
METHYLHYDRAZINE	0.0100			
MTBE	0.0021			
NAPHTHALENE	0.0009			
NICKEL COMPOUNDS	0.0757			
NITROGEN OXIDES	1041.2452			
NITROUS OXIDE	5.9408			
PHENOL	0.0009			
PM10-FIL	38.7874			
PM25-FIL	16.8611			
PM-CON	62.5911			
PM-FIL	74.6917			
POLYCYCLIC ORGANIC MATTER	0.0012			
PROPIONALDEHYDE	0.0224			
SELENIUM COMPOUNDS	0.0028			
STYRENE	0.0015			
SULFUR DIOXIDE	2730.2548			
TETRACHLOROETHYLENE	0.0025			
TOLUENE	5.1041			
VINYLACETATE	0.0004			
VOLATILE ORGANIC COMPOUNDS	85.8045			
XYLENE	0.0019			



## APPENDIX H – Proposed Language Changes

## 8.1. Monitoring Requirements

- 8.1.1. For the purpose of determining compliance with the flow rate limits set forth in Section 8.1.1. of this permit, the total **feed forward** 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. Recordkeeping Requirements

- 8.2.1. 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.]*

**Commented [ATN1]:** 1-hour rolling average would be a lot of data points. We can calculate the average of each hour of the day.

8.4.2.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 **for each month** will be performed ~~no more than 30 days from the date in which the sample was taken~~ by the 15<sup>th</sup> day of the following calendar month.

Delete section 5.2.3 There is no requirement to do visible emission readings on natural gas boilers.

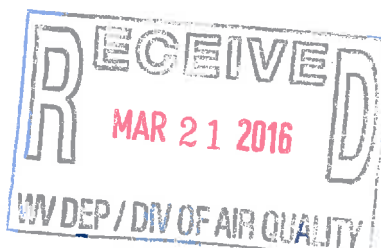
## APPENDIX I – EPA Variance Letter for Startup Timing



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029**

Mr. Robert J. Fehrenbacher  
Plant Manager  
The Chemours Company  
Washington Works  
8480 DuPont Road  
PO Box 1217  
Washington, WV 26181

MAR 15 2016



Dear Mr. Fehrenbacher:

This letter is in response to The Chemours Company's ("Chemours") January 6, 2016 request for a Clean Air Act variance for its facility located in Washington, West Virginia. Specifically, Chemours is seeking a variance from the work practice standards pertaining to boiler startups which are specified in the federal National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler NESHAP), found at 40 CFR Part 63, Subpart DDDDD.

The U.S. Environmental Protection Agency, Region III (EPA) is responding to Chemours' request on behalf of the West Virginia Department of Environmental Protection (WV DEP). EPA is responding to Chemours' request because the WV DEP has not yet been delegated the authority to act on such requests.

In its request, Chemours explains that it operates five coal-fired spreader stoker boilers (designated as P02 through P06) at its plant located in Washington, West Virginia. Chemours notes that the Boiler NESHAP's work practice standards applicable to the startup of these boilers, as they are specified at Table 3 to Subpart DDDDD of part 63 (item #5(c)(2)), require Chemours to engage the particulate matter (PM) controls for the boilers within "one hour after first feeding fuels that are not clean fuels." Chemours explains that its facility requires additional time to engage its PM controls during startup of its boilers, and that it is therefore seeking a startup variance as allowed under the Boiler NESHAP's provisions at 40 CFR 63.7555(d)(13).

Chemours specifically requests a variance allowing it to "increase the allowable time between the start of fuel feed to the boiler as defined by the rule and the closure of the Particulate control device (Bag Filter) bypass valves by an additional three (3) hours for a total of four (4) hours elapsed time between the start of fresh fuel feed (defined as the first addition of new "not clean" fuel) and the requirement that the particulate control device be on-line."

Under the Boiler NESHAP's variance provisions at 40 CFR 63.7555(d)(13), sources complying with the Boiler NESHAP as required for sources that rely on paragraph (2) of the rule's definition of "startup" may obtain a variance allowing additional time to engage their PM controls during boiler startups if they are able to meet specified requirements. These requirements include, in summary: 1)

demonstrating that engaging their PM controls within one hour would cause a "documented manufacturer identified safety issue;" 2) identifying with specificity the details of the manufacturer's statement of concern; 3) demonstrating that their PM control devices are adequately designed and sized to meet the applicable PM emissions limit; 4) demonstrating that they will be using manufacturer recommended procedures to alleviate or prevent the identified safety issue; and, 5) demonstrating that they will use clean fuel during startups to the maximum extent possible.

EPA has concluded that Chemours has demonstrated, based on the information Chemours supplied in its original January 7, 2016 request, and in other supplementary submittals that Chemours has provided at EPA's request, that Chemours meets these requirements. EPA discusses Chemours' submittals and EPA's review of them in more detail in the enclosure to this letter.

Because Chemours has shown, based on the information it submitted, that it meets the Boiler NESHAP's requirements for obtaining a startup variance, EPA is approving Chemours request for a variance allowing it to "increase the allowable time between the start of fuel feed to the boiler as defined by the rule and the closure of the Particulate control device (Bag Filter) bypass valves by an additional three (3) hours for a total of four (4) hours elapsed time between the start of fresh fuel feed (defined as the first addition of new "not clean" fuel) and the requirement that the particulate control device be on-line." However, EPA is giving this approval with a condition pertaining to the allowed startup time.

This condition is that if Chemours finds during a particular startup of a boiler that conditions would allow it to safely bring the PM control device of a boiler on-line more quickly than the variance's allowed time, then during that startup Chemours shall bring the PM control device of the boiler on-line as expeditiously as is safely possible.

This approval is contingent on Chemours complying with the Boiler NESHAP as required for sources relying on paragraph (2) of the definition of "startup" (with the exception of requirements modified by this variance); on its continuing to use manufacturer recommended procedures to alleviate or prevent the identified safety issue; and, on its continuing to use clean fuels when igniting the coal bed in its boilers.

Please note that sources which qualify for variances from the Boiler NESHAP's work practice requirements pertaining to PM control during boiler startups are required to continue to comply with all other work practice requirements specified in the Boiler NESHAP, including, but not limited to, data collection, recordkeeping and reporting requirements.

If you have any questions, please do not hesitate to contact me or Mr. Ray Chalmers, the EPA Region III contact for Boiler NESHAP issues at 215-814-2061 or [chalmers.ray@epa.gov](mailto:chalmers.ray@epa.gov).

Sincerely,



Nikos Singelis, Acting Director  
Air Protection Division

Enclosure

cc: J. Adkins, WV DEP  
R. Chakrabarty, WV DEP  
J. Mentink, Chemours Washington Works

### Enclosure

Chemours reports that it operates a facility located in Washington, WV that has five coal-fired stoker boilers which are subject to the requirements of the federal National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler NESHAP), 40 CFR Part 63, Subpart DDDDD.

Chemours reports that its five coal-fired boilers are designated as #2 (P02), #3 (P03), #4 (P04), #5 (P05), and #6 (P06). Chemours states that these boilers are rated at 64.2, 94, 125, 181, and 241 million BTU/Hour, respectively, and that they were installed in the 1940s, 1950s, and 1960s. Chemours reports that the boilers are equipped with baghouses to control their particulate matter (PM) emissions.

Chemours is required, under the Boiler NESHAP's provisions applicable to its five coal-fired boilers, to operate the boilers in compliance with PM emission limits at most times, and to operate the boilers in accordance with work practice standards during boiler startup periods. The Boiler NESHAP's startup requirements as applicable to Chemours' boilers are specified in the NESHAP at Table 3, item #5(c)(2). These requirements indicate that "once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all the applicable control devices so as to comply with the applicable emission limits within 4 hours of start of supplying useful thermal energy. You must engage and operate PM control within one hour of first feeding fuels that are not clean fuels."

On January 6, 2016, Chemours requested approval of a variance from the work practice standards that are applicable to its boilers. Chemours had sent its request to the West Virginia Department of Environmental Protection (WV DEP). The Boiler NESHAP allows a delegated permit authority to approve a startup variance when sources can show them to be justified. However, the WV DEP, while it has been delegated the authority to implement and enforce most provisions of the Boiler NESHAP, has not yet been delegated the authority to act on requests for Boiler NESHAP startup variances. Accordingly, the WV DEP asked EPA to respond to Chemours' request for such a startup variance.

Chemours' specific request was for approval of a variance allowing it to "increase the allowable time between the start of fuel feed to the boiler as defined by the rule and the closure of the Particulate control device (Bag Filter) bypass valves by an additional three (3) hours for a total of four (4) hours elapsed time between the start of fresh fuel feed (defined as the first addition of new "not clean" fuel) and the requirement that the particulate control device be on-line."

As Chemours indicated by quoting the Boiler NESHAP's relevant provision in its request, the Boiler NESHAP provides at 40 CFR 63.7555(d)(13) that "If you choose to use paragraph (2) of the definition of "startup" in §63.7575 and you find that you are unable to safely engage and operate your PM control(s) within 1 hour of first firing of non-clean fuels, you may choose to rely on paragraph (1) of definition of "startup" in §63.7575 or you may submit to the delegated permitting authority a request for a variance requirement, as described below...."

The Boiler NESHAP's specified requirements for obtaining a variance include, in summary: 1) demonstrating that engaging the PM control(s) within one hour would cause a "documented manufacturer identified safety issue;" 2) identifying with specificity the details of the manufacturer's statement of concern; 3) demonstrating that the PM control(s) are adequately designed and sized to meet the applicable PM emissions limit; 4) demonstrating that manufacturer recommended procedures will be

used to alleviate or prevent the identified safety issue; and, 5) demonstrating that clean fuel will be used during boiler startups to the maximum extent possible.

In its original January 7, 2016 submittal, and in its letters to EPA dated January 28, February 15 and February 25 providing supplementary information requested by EPA, Chemours addressed the specified requirements for obtaining a variance. In its letter to EPA dated January 28, 2016, Chemours confirmed a “documented manufacturer-identified safety issue.” Chemours provided a written confirmation from Southern Environmental, Inc., the supplier of its baghouses, that “[i]ntroducing flue gas to the bags prior to stable boiler operation and/or with gas temperatures below dewpoint, can cause the bags to become blinded, restricting flue gas flow and risking a loss of draft in the boiler which could endanger personnel and equipment.” Southern Environmental, Inc. included this statement in a modified version of its recommended startup procedures.

In its January 28, 2016 letter, Chemours also explained that if the bags were blinded the combustion chambers would then be pressurized, resulting in hot gases being emitted “into the immediate work environment of the boiler operators.” Chemours further explained that the hot gases could also be forced back to the coal feed bunker, which could “light the coal bunker on fire....”

In its February 15, 2016 letter, Chemours discussed the startup-related safety issues further; discussed an actual back pressure event that had occurred when its baghouse bypass valve had been closed too soon; described revisions it had made to its startup procedures to reduce the possibility that such an event would occur again; and, also discussed the time required to properly implement its startup procedures.

In its February 25, 2016 submittal, Chemours addressed the requirement that it demonstrate that its PM controls are adequately designed and sized. Chemours did so by providing stack test results which indicate that the PM emissions from its coal-fired boilers are, after control by its baghouses, below the Boiler NESHAP’s PM emissions limit.

In its initial submittal of January 7, 2016, Chemours discussed manufacturer-recommended startup procedures. Chemours provided as enclosures three exhibits. These include: 1) the relevant section of a “training manual prepared by the boiler manufacturer” that details recommended boiler startup procedures; 2) a vendor supplied “Baghouse Process Flow and Operational Descriptions” document; and, 3) a copy of the “current startup procedures for the affected boilers.”

In its initial January 7, 2016 submittal, Chemours also reported that it meets the requirement for use of clean fuel during boiler startups. Chemours stated that “[i]nitial ignition of the coal bed is done by using absorbent material as a ‘wick’ and using kerosene as the accelerant, or fuel, to provide the heat for igniting the coal.”

The Boiler NESHAP specifies in Table 3, #5 that kerosene is a clean fuel. EPA has confirmed that use of a clean fuel such as kerosene to initially ignite a bed of coal in a boiler meets the requirements for use of a clean fuel during boiler startups. This confirmation can be found in the Boiler MACT Q&A document posted on EPA’s website, at Q&A #58.



Based on Chemours' submittals as discussed above, EPA finds that Chemours meets the Boiler NESHAP's requirements for approval of a startup variance. EPA has further determined that Chemours specific request for a variance allowing it to "increase the allowable time between the start of fuel feed to the boiler as defined by the rule and the closure of the Particulate control device (Bag Filter) bypass valves by an additional three (3) hours for a total of four (4) hours elapsed time between the start of fresh fuel feed (defined as the first addition of new "not clean" fuel) and the requirement that the particulate control device be on-line," is approvable if one condition is established.

EPA notes that in its variance request Chemours is seeking the minimum extension of time needed to engage its PM controls after startup in order to diminish the potential for any safety issues. EPA believes it is possible that Chemours may find that during some boiler startups conditions are such that Chemours could bring its PM controls on-line in a shorter amount of time then the 4 hour timeframe after the start of fresh fuel feed that it requested.

EPA has therefore concluded that if Chemours should experience conditions during a particular startup which would allow Chemours to engage its PM controls in a shorter amount of time then the 4 hour timeframe after the start of fresh fuel feed that it requested, then Chemours should engage its PM controls as expeditiously as is safely possible during that startup, despite the 4 hour timeframe that it requested.

Accordingly, EPA is approving Chemours' request for a variance allowing Chemours to wait to bring its PM controls on-line "for a total of four (4) hours elapsed time between the start of fresh fuel feed (defined as the first addition of new "not clean" fuel) and the requirement that the particulate control device be on-line," with the one condition that if Chemours should experience conditions during a particular boiler startup which would allow Chemours to engage its PM controls in a shorter amount of time than the 4 hour timeframe it requested, then Chemours should engage its PM controls as expeditiously as is safely possible during that startup.

Chemours must continue to meet the ongoing requirements for approval of the variance, which include: 1) complying with the Boiler NESHAP as required for sources relying on paragraph (2) of the definition of "startup" (with the exception of requirements for which it requested a variance); 2) using manufacturer recommended procedures to alleviate or prevent the identified safety issue; and, 3) using clean fuel during boiler startups to the maximum extent possible when igniting the coal bed in its boilers.

EPA notes that the Boiler NESHAP specifies at 40 CFR 63.7555(d)(13)(iv) that sources that qualify for variances from the Boiler NESHAP's work practice requirements pertaining to PM control during boiler startups are still required to continue to comply with all other work practice requirements specified in the Boiler NESHAP, including, but not limited to, data collection, recordkeeping and reporting requirements.

