

CYTEC

#1 Heilman Avenue
Willow Island, WV 26134
(304) 665-2422



May 28, 2019

Ms. Laura M. Crowder, Acting Director
WV Department of Environmental Protection
Division of Air Quality
601 57th Street
Charleston, WV 25304

**Overnight Delivery
Federal Express**

**CYTEC INDUSTRIES INC.
WILLOW ISLAND PLANT
WVDAQ ID NO. 073-00003**

**REFERENCE: Title V Permit - Site Services R30-07300003-2015 (Part 3 of 3) (MM01)
Modified May 17, 2016**

SUBJECT: Title V Permit Renewal Application

Dear Acting Director Crowder:

CYTEC Industries Inc. hereby submits the enclosed application for renewal of the referenced Title V permit. We believe the enclosed renewal application contains the appropriate elements as indicated by the DAQ's "Title V Permit Application Checklist for Administrative Completeness".

The DAQ Title V group most recently issued Minor Modification MM01 to the referenced permit on May 17, 2016. Cytec is not requesting any changes to the permit as issued (MM01), during this renewal process.

Cytec will appreciate the opportunity to review and comment upon a pre-draft Title V Permit.

May 28, 2019
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Should you have additional questions regarding this submittal please contact me at 304-665-3439 or Brian.Schmidt@solvay.com.

Very truly yours,

Cytec Industries Inc.



Brian Schmidt
Environmental Engineer

Enclosure

Table of Contents

Document	Paper or Electronic Submittal?
Cover Letter	Paper (Scanned copy on CD)
Title V Permit Renewal Application Form	Electronic on CD (Paper – Certification Signature Page)
Compact Disk	Electronic on CD
Attachment A: Area Map	Electronic on CD
Attachment B: Plot Plans	Electronic on CD
Attachment C: Process Flow Diagrams	Electronic on CD
Attachment D: Equipment Table	Electronic on CD
Attachment E: Emission Unit Forms	Electronic on CD
Attachment G: Air Pollution Control Device Forms	Electronic on CD
Attachment H: Compliance Assurance Monitoring (CAM) Form	Electronic on CD



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
 Charleston, WV 25304
 Phone: (304) 926-0475
www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

<p>1. Name of Applicant (As registered with the WV Secretary of State's Office): Cyttec Industries Inc.</p>	<p>2. Facility Name or Location: Willow Island Plant</p>
<p>3. DAQ Plant ID No.: 0 7 3 — 0 0 0 0 3</p>	<p>4. Federal Employer ID No. (FEIN): 2 2 3 2 6 8 6 6 0</p>
<p>5. Permit Application Type:</p> <p><input type="checkbox"/> Initial Permit When did operations commence? Prior to 01/01/1950</p> <p><input checked="" type="checkbox"/> Permit Renewal What is the expiration date of the existing permit? 01/06/2020</p> <p><input type="checkbox"/> Update to Initial/Renewal Permit Application</p>	
<p>6. Type of Business Entity:</p> <p><input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Governmental Agency <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Limited Partnership</p>	<p>7. Is the Applicant the:</p> <p><input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both</p> <p>If the Applicant is not both the owner and operator, please provide the name and address of the other party.</p>
<p>8. Number of onsite employees: ~200 employees</p>	
<p>9. Governmental Code:</p> <p><input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> District government owned and operated; 5</p>	
<p>10. Business Confidentiality Claims</p> <p>Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>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.</p>	

11. Mailing Address		
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	State: WV	Zip: 26134-9801
Telephone Number: (304) 665-3439	Fax Number: (304) 665-3674	

12. Facility Location		
Street: State Route 2	City: Willow Island	County: Pleasants
UTM Easting: 474.00 km	UTM Northing: 4,356.00 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: From Interstate 77, Exit 179, take State Route 2, north approximately 10 miles. Plant site on left (river side) of State Route 2, two miles south of Belmont, WV.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Ohio, Pennsylvania	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
¹ 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.		

13. Contact Information		
Responsible Official: David C. Fenton		Title: Site Manager
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	State: WV	City: Willow Island
Telephone Number: (304) 665-3702	Fax Number: (304) 665-3616	
E-mail address: david.fenton@solvay.com		
Environmental Contact: Brian Schmidt		Title: Environmental Engineer
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	State: WV	City: Willow Island
Telephone Number: (304) 665-3439	Fax Number: (304) 665-3674	
E-mail address: brian.schmidt@solvay.com		
Environmental Contact: Jeff Yeager		Title: Site SHE Manager
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	State: WV	City: Willow Island
Telephone Number: (304) 665-3488	Fax Number: (304) 665-3674	
E-mail address: jeff.yeager@solvay.com		

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
Polymer Additives	Ultraviolet light absorbers, antioxidants and anti-static agents	325199	2869
Surfactants	Surfactants for use where surface tension is critical including mining floatation processes, oil dispersions, water treating chemicals, paints, carpet backing and pharmaceuticals	325613	2843
<p>Provide a general description of operations.</p> <p>Cytec Industries is a global, research-based specialty chemical company. The company operates a multi-product, multi process chemical plant at Willow Island, West Virginia. The facility in Pleasants County covers nearly 1,000 acres, 250 of which are used for plant operations. Approximately 165 people are employed at the plant to support the operations that are divided into the following three business units: Polymer Additives, Surfactants, and Site Services.</p> <p>Polymer Additives, the largest business unit, manufactures ultraviolet light absorbers, antioxidants and anti-static agents. The light absorbers are used in all types of plastics (bottles, telephones, lawn furniture, auto parts), in coatings, and in sunscreens. Antioxidants are used in man-made fibers, rubber products, plastics and in medical applications. Anti-static agents are used in the electronics industry, in copy machine toner and in textile applications.</p> <p>The Surfactants unit manufactures surfactants for use where surface tension is critical. The multi-purpose applications include mining floatation processes, oil dispersions, water treating chemicals, paints, carpet backing and pharmaceuticals.</p> <p>Site Services is responsible for providing the shared services that support the site's manufacturing processes: steam generated by two natural gas-fired boilers, an on-site wastewater treatment plant, emergency generators, fire protection, site security, etc.</p> <p>All aqueous process wastes from the manufacturing units and all stormwater from the manufacturing areas are treated on-site in a biological wastewater treatment plant. The discharge from the wastewater treatment plant, which is permitted by the WV Division of Water and Waste Management and which is subject to strict discharge limitations, is to the Ohio River. The sanitary wastes are collected and treated in a separate system.</p>			
15. Provide an Area Map showing plant location as ATTACHMENT A . Enclosed			
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." Enclosed			
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. Enclosed			

Section 2: Applicable Requirements

18. Applicable Requirements Summary <u>Note:</u> Facilitywide applicable requirements are below.	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" 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 checked="" 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 checked="" 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 checked="" type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations
<p>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.</p> <p>The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.</p> <p>a. 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 Site Services area constructed within the applicable dates with a design capacity greater than 40,000 gallons.</p> <p>b. 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 19, 1978, and Prior to July 23, 1984.” There are no petroleum liquid storage tanks in the Site Services area constructed within the applicable dates with a design capacity greater than 40,000 gallons.</p> <p>c. 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 Site Services area constructed after July 23, 1984 with a design capacity equal to or greater than 75 cubic meters (m3).</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.

d. 40 C.F.R. 60, Subpart VV – “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.” The Site Services area does not produce as intermediates or final products any of the materials listed in 40 C.F.R. §60.489.

e. 40 C.F.R. 60, Subpart DDD – “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.” The Site Services area does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.

f. 40 C.F.R. 60, Subpart III – “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes.” The Site Services area does not produce any of the chemicals listed in 40 C.F.R. §60.617 as a product, co-product, by-product, or intermediate.

g. 40 C.F.R. 60, Subpart NNN – “Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.” The Site Services area does not produce any of the chemicals listed in 40 C.F.R. §60.667 as a product, co-product, by-product, or intermediate.

h. 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 Site Services area does not produce any of the chemicals listed in 40 C.F.R. §60.707 as a product, co-product, by-product, or intermediate.

i. 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 Site Services Area.

j. 40 C.F.R. 63, Subparts F, G, and H – “National Emission standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (HON).” 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). The equipment subject to this permit is not an “affected facility,” because such equipment does not manufacture as a primary product any chemical listed in Table 1 of 40 C.F.R. 63, Subpart F.

k. 40 C.F.R. 63, Subpart DD – “National Emission Standards for Hazardous Air Pollutants From Off-Site Waste and Recovery Operations.” The Site Services area does not receive off-site materials as specified in paragraph 40 C.F.R. §63.680(b) and the operations are not one of the waste management operations or recovery operations as specified in 40 C.F.R. §§63.680(a)(2)(i) through (a)(2)(vi).

l. 40 C.F.R. 63, Subpart JJ – “National Emission Standards for Wood Furniture Manufacturing Operations.” The Site Services area does not include any “wood furniture manufacturing operations”, as defined in 40 C.F.R. §63.801.

m. 40 C.F.R. 63, Subpart JJJ – “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.” The Site Services area does not produce the materials listed in 40 C.F.R. §63.1310.

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.

n. 40 C.F.R. 63, Subpart PPPP – “National Emission standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products.” The Site Services area does not produce an intermediate or final product that meets the definition of “surface coated” plastic part.

o. 40 C.F.R. 63, Subpart WWW – “National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.” The Site Services area does not engage in reinforced plastics composites production as defined in 40 C.F.R. §63.5785 and does not manufacture composite material as defined in 40 C.F.R. §63.5935.

p. 40 C.F.R. 64 – “Compliance Assurance Monitoring.” Per 40 C.F.R. §64.2(a)(3), emission point 226E is not subject to the CAM Rule because pre-control device emissions are less than 10 tons per year of single HAP.

q. 45CSR17 – “To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter.” Per 45CSR§17-6.1, CYTEC is not subject to 45CSR17 because the Willow Island Plant is subject to the fugitive particulate matter emission requirements of 45CSR7.

r. 45CSR27 – “To Prevent and Control the Emissions of Toxic Air Pollutants.” Since the potential emissions to the atmosphere from all sources (point, fugitive, and secondary) at CYTEC’s Willow Island Plant are less than 1,000 lb/yr of formaldehyde, less than 1,000 lb/yr of benzene, and less than 500 lb/yr of acrylonitrile, emission units at the plant are no longer subject to the BAT requirements under 45CSR27, per section 45CSR§27-3.1. Also, per 45CSR§27-3.1, emission units at the plant that emit formaldehyde and benzene would no longer be subject to the BAT requirements of 45CSR27 because the formaldehyde emitting sources are now subject to the requirements of 40 C.F.R. 63, Subpart FFFF and the benzene emitting sources are now subject to the requirements of 40 C.F.R. 63, Subpart GGGG. Site-wide potential to emit for acrylonitrile is zero because the single process which formerly utilized acrylonitrile was shut down and all equipment was dismantled in 2008.

For the above reasons, the benzene and formaldehyde emission limitations and requirements of R30-10700003-2015 (Site Services, Part 3 of 3) and R30-07300003-2016 (Polymer Additives, Part 2 of 3) shall supersede and replace the requirements of Consent Order CO-R27-C-2000-27.

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*).

- 45CSR6-3.1. & 3.2. Open burning & open burning exemptions.
- 40CFR61 Subpart M - 61.145, 61.148, and 61.150 and 45CSR§34 Asbestos.
- 45CSR4-3.1. [State-Enforceable only.] Odors.
- 45CSR11-5.2. Standby plan for reducing emissions.
- WV Code § 22-5-4(a)(14) Emission inventory.
- 40 CFR Part 82, Subpart F Ozone-depleting substances.
- 40 CFR Part 68 Risk management plan.
- WV Code § 22-5-4(a)(15) and 45CSR13 Stack testing.
- 45CSR§30-5.1.c.2.A.; 45CSR13, R13-2120, 4.4.1. Monitoring information.
- 45CSR§30-5.1.c.2.B. Retention of records.
- 45CSR§30-4.4. and 5.1.c.3.D. Responsible official.
- 45CSR31, 45CSR§30-5.1.c.3.E. Confidential business information.
- 45CSR§30-8. Certified emissions statement.
- 45CSR§30-5.3.e. Compliance certification.
- 45CSR§30-5.1.c.3.A. Semi-annual monitoring reports.
- 45CSR§30-5.7 Emergencies.
- 45CSR§30-5.1.c.3. Deviations.
- 45CSR30-4.3.h.1.B. New applicable requirement.

Permit Shield

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.)

45CSR6-3.1. & 3.2. Open burning & open burning exemptions – Compliance is demonstrated by Condition Numbers 3.1.1 & 3.1.2.

40CFR61 Subpart M - 61.145, 61.148, and 61.150 and 45CSR§34 Asbestos – Compliance is demonstrated by Condition Number 3.1.3.

45CSR4-3.1.; 45CSR§30-5.1.c. Odors – Compliance is demonstrated by Condition Numbers 3.1.4 & 3.4.3.

45CSR11-5.2. Standby plan for reducing emissions – Compliance is demonstrated by Condition Number 3.1.5.

WV Code § 22-5-4(a)(14) Emission inventory – Compliance is demonstrated by Condition Number 3.1.6.

40 CFR Part 82, Subpart F Ozone-depleting substances – Compliance is demonstrated by Condition Number 3.1.7.

40 CFR Part 68 Risk management plan – Compliance is demonstrated by Condition Number 3.1.8.

WV Code § 22-5-4(a)(15)

45CSR13 Stack testing – Compliance is demonstrated by Condition Number 3.3.1.

45CSR§30-5.1.c.2.A.; 45CSR13, R13-0936, 3.4.1; 45CSR13, R13-2560, 4.4.1. Monitoring information – Compliance is demonstrated by Condition Number 3.4.1.

45CSR§30-5.1.c.2.B. Retention of records – Compliance is demonstrated by Condition Number 3.4.2.

45CSR§§30-4.4. and 5.1.c.3.D. Responsible official – Compliance is demonstrated by Condition Number 3.5.1.

45CSR31, 45CSR§30-5.1.c.3.E. Confidential business information – Compliance is demonstrated by Condition Number 3.5.2.

45CSR§30-8. Certified emissions statement – Compliance is demonstrated by Condition Number 3.5.4.

45CSR§30-5.3.e. Compliance certification – Compliance is demonstrated by Condition Number 3.5.5.

45CSR§30-5.1.c.3.A. Semi-annual monitoring reports – Compliance is demonstrated by Condition Number 3.5.6.

45CSR§30-5.7 Emergencies – Compliance is demonstrated by Condition Number 3.5.7.

45CSR§30-5.1.c.3. Deviations – Compliance is demonstrated by Condition Number 3.5.8.

45CSR30-4.3.h.1.B. New applicable requirements – Compliance is demonstrated by Condition Number 3.5.9.

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.
List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number. Completed above.
<input checked="" type="checkbox"/> Permit Shield
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.) Completed above.
Are you in compliance with all facility-wide applicable requirements? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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>
Surfactants		
R30-07300003-2017 (Part 1 of 3)	08/21/2017 (issued)	
R13-2120I	04/07/2015	
Polymer Additives		
R30-07300003-2016 (Part 2 of 3), MM06 and MM07	03/19/2019 (modified)	
R13-2156AE	04/09/2019	
Site Services		
R30-07300003-2015 (Part 3 of 3), MM01	05/17/2016 (modified)	
R13-0936B	06/11/2009	
R13-2560F	02/12/2016	

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
Surfactants		
R13-2120H (& prior versions)	06/27/2012	
Polymer Additives		
R13-2156AD (& prior versions)	10/15/2018	
R13-190	10/02/1975	
R13-671	08/25/1982	
R13-794	05/23/1985	
R13-1006	05/27/1988	
R13-1018	06/24/1988	
R13-1082B	07/13/2000	
R13-1114B	12/20/2002	
R13-1535C	03/06/2000	
R13-1735	07/15/1994	
Site Services		
R13-0936A	10/22/2004	
R13-2560E (& prior versions)	09/18/2006	

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	72.83
Nitrogen Oxides (NO _x)	81.97
Lead (Pb)	---
Particulate Matter (PM _{2.5}) ¹	17.74
Particulate Matter (PM ₁₀) ¹	21.00
Total Particulate Matter (TSP)	22.75
Sulfur Dioxide (SO ₂)	42.04
Volatile Organic Compounds (VOC)	210.43
Hazardous Air Pollutants ²	Potential Emissions
Acetonitrile	0.33
Acrylamide	0.02
Acrylic Acid	0.20
Benzene	0.25
Chloroform	0.38
Dimethyl Formamide	0.83
Ethylbenzene	0.04
Formaldehyde	0.48
Hexane	1.94
Hydrochloric Acid	<0.01
Maleic Anhydride	0.18
Methanol	13.34
Methyl Isobutyl Ketone	44.43
Methylene Chloride	0.25
Toluene	82.31
Toluene-2,4-Diisocyanate	<0.01

Triethylamine	6.71
Xylenes (isomers and mixtures)	0.56
Total HAP	152.24
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Non-Exempt CFCs	0.03
Greenhouse Gases (GHGs)	Potential Emissions
Carbon Dioxide (CO ₂)	137,009.2
Nitrous Oxide (N ₂ O)	1.05
Methane (CH ₄)	149.46
Hydrofluorocarbons (HFCs)	0.30
Perfluorocarbons (PFCs)	---
Sulfur hexafluoride (SF ₆)	---
CO ₂ equivalent (CO ₂ e)	141,489
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<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 ₂ 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 checked="" 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 checked="" 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 _x , SO ₂ , 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. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

24. Insignificant Activities (Check all that apply)	
<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 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 checked="" 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 checked="" 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 checked="" 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

24. Insignificant Activities (Check all that apply)	
	owners/operators must still get a permit if otherwise requested.)
<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 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 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 . Enclosed
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 . Enclosed
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F . Not Applicable
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 . Enclosed
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 . Enclosed – CAM is not applicable; non-applicability rationale statement included.

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance	
<i>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.</i>	
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: David C. Fenton	Title: Site Manager
Responsible official's signature:	
Signature: 	Signature Date: <u>May 28, 2019</u>
(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 checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

Area Map

See enclosed CD for electronic files

Attachment A

Area Map



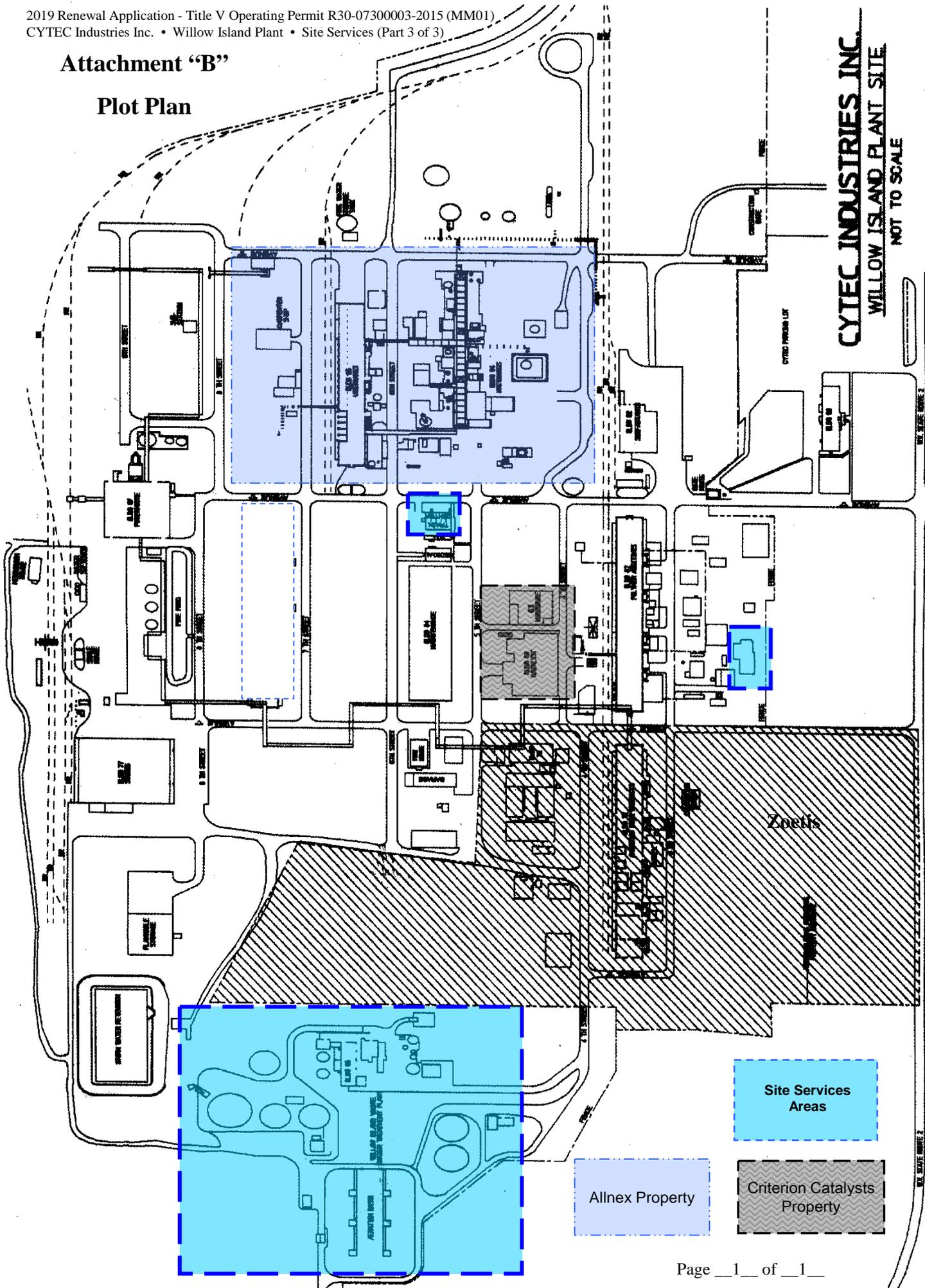
ATTACHMENT B

Plot Plans

See enclosed CD for electronic files

Attachment "B"

Plot Plan



CYTEC INDUSTRIES INC.
WILLOW ISLAND PLANT SITE
NOT TO SCALE

000282AYDOA

Zoetis

Site Services Areas

Allnex Property

Criterion Catalysts Property

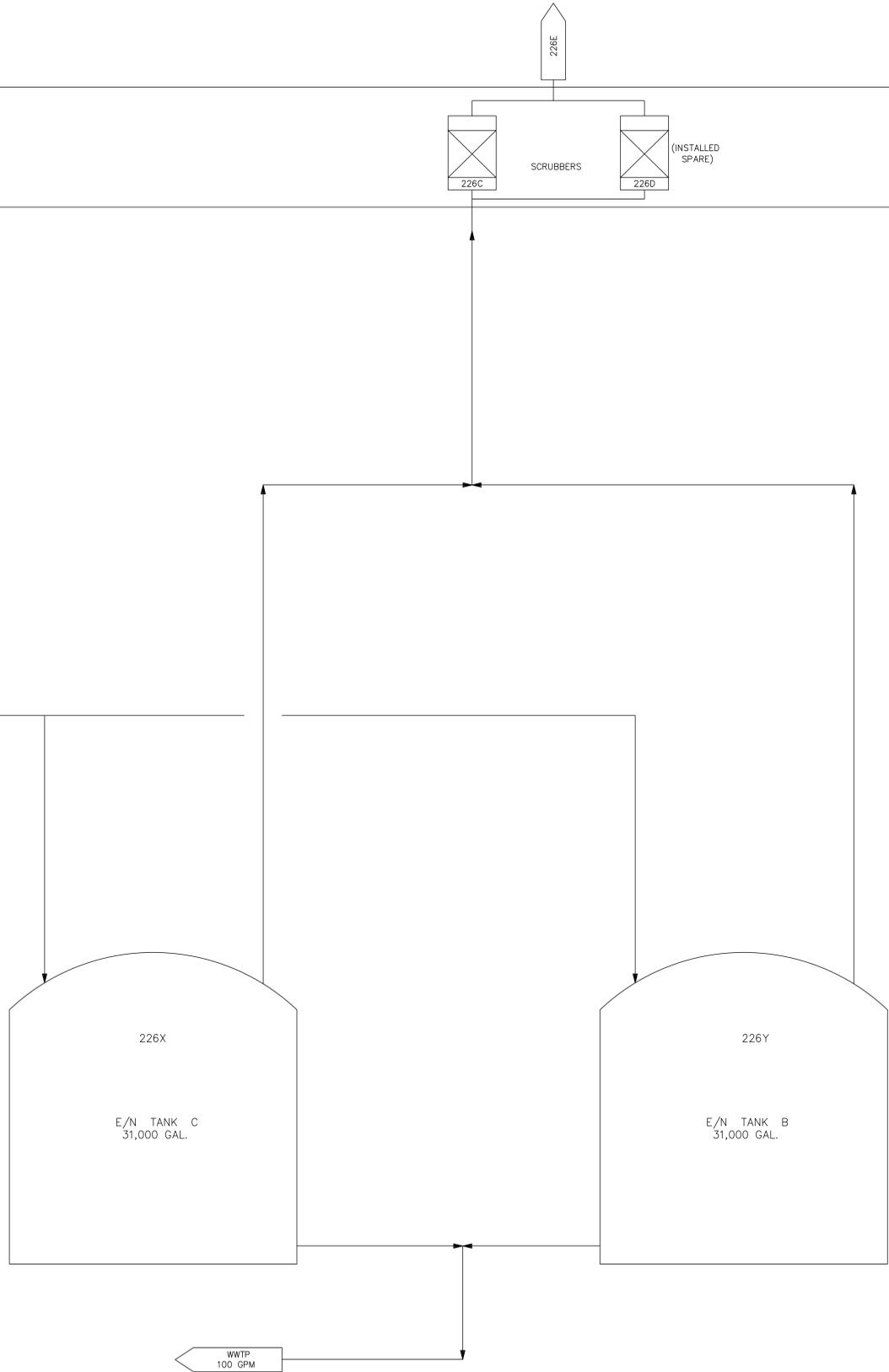
ATTACHMENT C

Process Flow Diagrams

See enclosed CD for electronic files

EMISSION POINTS
CONTROL EQUIPMENT

- HCL
- METHANOL RECOVERY COLUMN
- BATCH RECOVERY COLUMN
- CAUSTIC
- NITROGEN
- BLDG. 82 PROCESS SEWER



CYTEC CONFIDENTIAL

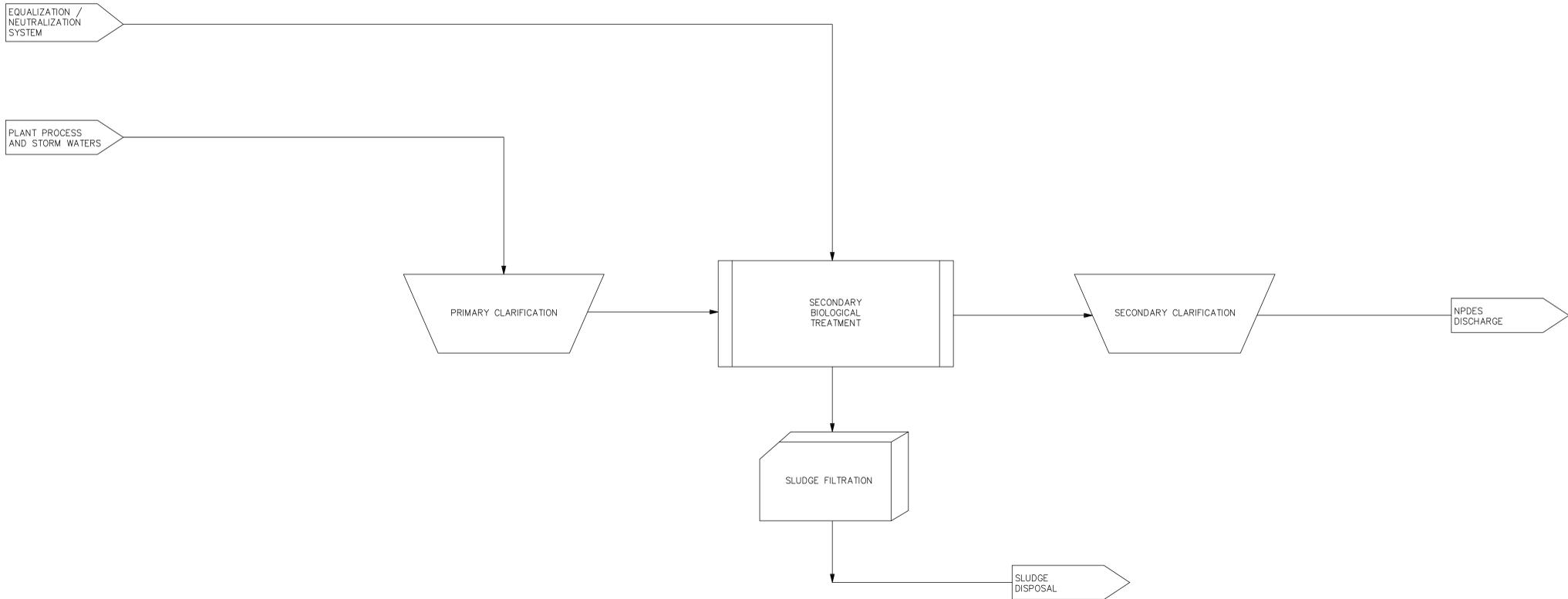
▲			
▲			
▲			
▲			
▲	ENVR. REVIEW	RLA 05/13/09	JKP 05/13/09
▲	ENVR. REVIEW	TMS 4-30-04	DNH
▲	UPDATE NO. 1	MER 3/3/97	JKP 3/3/97
NO.	DESCRIPTION	BY / DATE	CHK / DATE

CYTEC
 CYTEC INDUSTRIES INC.
 #1 HEILMAN AVE
 WILLOW ISLAND, WV 26134

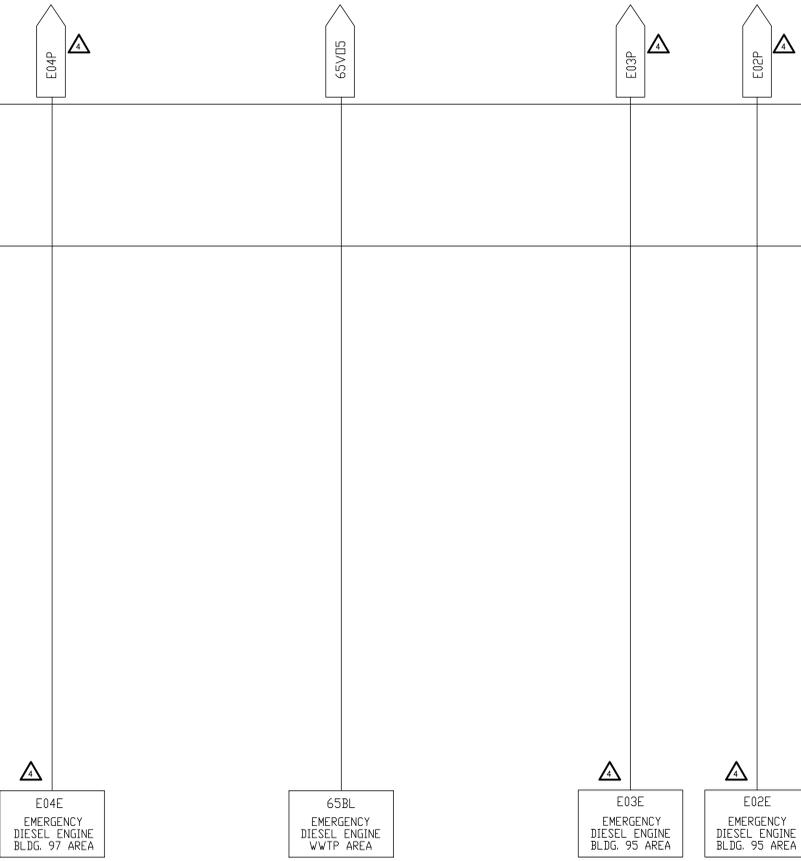
SCALE: DRAFTSMAN egl 960826
 ENGINEER JKP

EQUALIZATION / NEUTRALIZATION FACILITY
 (PROCESS FLOW DIAGRAM)

PROJECT NUMBER	SEQ. NUMBER	DRAWING NUMBER	BAY	SIZE	REV.
WORK ORDER NUMBER		810227V000E	3		
	BLDG.	DISCIPLINE	FLOOR		



▲			
▲			
▲			
▲	ENVR REVIEW	RLA 05/13/09	JKP 05/13/09
▲	UPDATE NO. 1	MER 3/3/97	JKP 3/3/97
▲	AFTER AGENCY REVIEW	egl/961101	jkp/961101
NO.	DESCRIPTION	BY / DATE	CHK / DATE
CYTEC			
CYTEC INDUSTRIES INC. P.O. BOX 300 BELMONT, WV 26134-0300			
SCALE	NONE		
DRAFTSMAN	egl 960814	WASTEWATER TREATMENT	
ENGINEER	JKP 960814		
PROJECT NUMBER		DRAWING NUMBER	REV.
WORK ORDER NUMBER		650407V000E	3
096023		BLDG.	DISCIPLINE FLOOR



EMISSION POINTS
CONTROL EQUIPMENT

△			
△			
△			
△	EDITED EMERGENCY DIESEL ENGINE EMISSION POINT	RLA 12/28/10	JKP 12/28/10
△	ENVR. REVIEW	RLA 05/13/09	JKP 05/13/09
△	ADD EDP3	TMS 11/01	JKP 11/01
△	AFTER AGENCY REVIEW	egl/961101	JKP/961101
NO.	DESCRIPTION	BY / DATE	CHK / DATE
CYTEC			
CYTEC INDUSTRIES INC. P.O. BOX 300 BELMONT, WV 26134-0300			
SCALE	NONE		
DRAFTSMAN	egl 960814		
ENGINEER	JKP 960814		
PROJECT NUMBER	DRAWING NUMBER		
WORK ORDER NUMBER	SEQ. NUMBER	BAY	SIZE
096215	000292	VYD0E	4
	BLDG.	DISCIPLINE	FLOOR

ATTACHMENT D

Equipment Table

See enclosed CD for electronic files

ATTACHMENT D – 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 Unit ID¹	Emission Point ID¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device¹
65WW	Open to atmosphere	On-Site Biological Wastewater Treatment System	1973 - 1992	9,000,000 GPD	----
226X	226E	E/N Tank C	1994	31,000 Gallons	Scrubbers 226C/226D
226Y	226E	E/N Tank B	1994	31,000 Gallons	Scrubbers 226C/226D
830X	830E	Boiler #A	2004	97.9 MMBTU/hr (Natural Gas) 93.6 MMBTU/hr (Distillate Oil)	----
831X	831E	Boiler #B	2004	97.9 MMBTU/hr (Natural Gas) 93.6 MMBTU/hr (Distillate Oil)	----
T83-F01	T83-EM1	Distillate Fuel Oil Storage Tank	2004	12,000 Gallons	----
65BL	65V05	Diesel Engine (Stationary Generator) – Bldg. 65	1988	355 hp	----
E04E	E04P	Emergency Diesel Engine (Stationary Fire Pump) – Bldg. 97	2010	175 hp	----
E02E	E02P	Emergency Diesel Engine (Stationary Fire Pump) – Bldg. 95	2012	183 hp	----
E03E	E03P	Emergency Diesel Engine (Stationary Fire Pump) – Bldg. 95	2013	183 hp	----

¹For 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 Forms

See enclosed CD for electronic files

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 65WW	Emission unit name: On-Site Biological Wastewater Treatment System	List any control devices associated with this emission unit: None – Open to atmosphere
---	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Primary and secondary biological wastewater treatment system consisting of: inlet, bar screen, primary clarifier, lift station, aeration basin, secondary clarification, settling/thickening and filtration.

Manufacturer: Various	Model number: NA	Serial number: NA
---------------------------------	----------------------------	-----------------------------

Construction date: 1971 - 1973	Installation date: 1971 - 1973	Modification date(s): Various
--	--	---

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 9,000,000 GPD

Maximum Hourly Throughput: NA	Maximum Annual Throughput: NA	Maximum Operating Schedule: NA
---	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not Applicable	Type and Btu/hr rating of burners: Not Applicable

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.
 Not Applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not Applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	---	---
Nitrogen Oxides (NO _x)	---	---
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	---	---
Particulate Matter (PM ₁₀)	---	---
Total Particulate Matter (TSP)	---	---
Sulfur Dioxide (SO ₂)	---	---
Volatile Organic Compounds (VOC)	NA	55.48
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
See list – page 4 of this form		
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
<p>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.).</p> <p>Process modeling (EmissionMaster) and wastewater secondary emission modeling (ToxChem).</p>		

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.

1. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 4.1.1; 45CSR34; 40 C.F.R. §63.7881(c); 45CSR§30-6.5.b.2

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 4.4.1; 45CSR34; 40 C.F.R. §63.7881(c); 45CSR§30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

Cytec Wastewater Treatment Plant – PTE HAP Species (in TPY)

Acrylic Acid	0.20
Benzene	0.25
Dimethyl formamide	0.18
Ethylbenzene	<0.01
Formaldehyde	0.07
Methanol	3.33
Methyl isobutyl ketone	35.13
Toluene	8.38
Triethylamine	0.01
Xylenes (isomers and mixtures)	<0.01

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 226X	Emission unit name: E/N Tank C	List any control devices associated with this emission unit: 226C/226D – vents via 226E
---	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Vertical tank used to equalize organic waste streams.

Manufacturer: Patterson Industries	Model number: NA	Serial number: 100-004B
--	----------------------------	-----------------------------------

Construction date: 1994	Installation date: 1994	Modification date(s): None
-----------------------------------	-----------------------------------	--------------------------------------

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 31,000 gallons

Maximum Hourly Throughput: 1,771 gph	Maximum Annual Throughput: 14,918,000 gal	Maximum Operating Schedule: 8,760 hr/yr
--	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes ___ <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not Applicable	Type and Btu/hr rating of burners: Not Applicable

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.
 Not Applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not Applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	---	---
Nitrogen Oxides (NO _x)	---	---
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	---	---
Particulate Matter (PM ₁₀)	---	---
Total Particulate Matter (TSP)	---	---
Sulfur Dioxide (SO ₂)	---	---
Volatile Organic Compounds (VOC)	21.5	5.2
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
THAP	21.5	1.5
Formaldehyde	0.5	0.05
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---
<p>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.).</p> <p>EmissionMaster emission modeling</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 5.1.1, 5.1.2; R13-0936B: 4.1.1, 4.1.2; 45CSR§13-5.11.
2. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 5.1.3, 5.1.4; R13-0936B: 3.1.8, 4.1.3; 45CSR§13-5.11.

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 5.2.1, 5.2.2, 5.4.1, 5.4.2, 5.5.1; R13-0936B: 3.4.2, 3.5.6, 4.2.1, 4.2.2, 4.4.1; 45CSR§27-10.4.
2. R30-07300003-2015 (MM01) (Part 3 of 3): 5.2.1, 5.2.2, 5.4.1, 5.4.2; R13-0936B: 3.4.2, 4.2.1, 4.2.2, 4.4.1.

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 226Y	Emission unit name: E/N Tank B	List any control devices associated with this emission unit: 226C/226D – vents via 226E
---	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Vertical tank used to equalize organic waste streams.

Manufacturer: Patterson Industries	Model number: NA	Serial number: 100-004B
--	----------------------------	-----------------------------------

Construction date: 1994	Installation date: 1994	Modification date(s): None
-----------------------------------	-----------------------------------	--------------------------------------

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 31,000 gallons

Maximum Hourly Throughput: 1,771 gph	Maximum Annual Throughput: 14,918,000 gal	Maximum Operating Schedule: 8,760 hr/yr
--	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u> X </u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not Applicable	Type and Btu/hr rating of burners: Not Applicable

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.
 Not Applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not Applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	---	---
Nitrogen Oxides (NO _x)	---	---
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	---	---
Particulate Matter (PM ₁₀)	---	---
Total Particulate Matter (TSP)	---	---
Sulfur Dioxide (SO ₂)	---	---
Volatile Organic Compounds (VOC)	21.5	5.2
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
THAP	21.5	1.5
Formaldehyde	0.5	0.05
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---
<p>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.).</p> <p>EmissionMaster emission modeling</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 5.1.1, 5.1.2; R13-0936B: 4.1.1, 4.1.2; 45CSR§13-5.11.
2. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 5.1.3, 5.1.4; R13-0936B: 3.1.8, 4.1.3; 45CSR§13-5.11.

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 5.2.1, 5.2.2, 5.4.1, 5.4.2, 5.5.1; R13-0936B: 3.4.2, 3.5.6, 4.2.1, 4.2.2, 4.4.1; 45CSR§27-10.4.
2. R30-07300003-2015 (MM01) (Part 3 of 3): 5.2.1, 5.2.2, 5.4.1, 5.4.2; R13-0936B: 3.4.2, 4.2.1, 4.2.2, 4.4.1.

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 830X	Emission unit name: Boiler #A	List any control devices associated with this emission unit: None – vents via 830E
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 In 2004, Cytec replaced their three existing boilers with two new natural gas, distillate oil co-firing boilers. The boilers generate steam, which is used on the plant site for process heat and for comfort heat.

Manufacturer: English Boiler & Tube, Inc.	Model number: 80-SLG-250	Serial number: 24-011-1
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Construction date: 2004	Installation date: 2004	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 97.9 MMBTU/hr (Natural Gas) ; 93.6 MMBTU/hr (Distillate Oil)

Maximum Hourly Throughput: 97,900 cuft/hr (Natural Gas) ; 658 gal/hr (Distillate Oil)	Maximum Annual Throughput: 858 MM cuft /yr (Natural Gas) ; 5.764 MM gal/yr (Distillate Oil)	Maximum Operating Schedule: 8,760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 97.9 MMBTU/hr (Natural Gas) ; 93.6 MMBTU/hr (Distillate Oil)	Type and Btu/hr rating of burners: Todd Combustion, John Zink Co. LLC 97.9 MMBTU/hr (Natural Gas) ; 93.6 MMBTU/hr (Distillate Oil)
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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.
 Primary Fuel: Natural Gas 97,900 cuft/hr 858 MM cuft /yr
 Secondary Fuel: Distillate Oil 658 gal/hr 5.764 MM gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.2 gr /100 ft3	NA	1,000 BTU/cuft
Distillate Oil	0.05 wt%	NA	142,200 BTU/gal

<i>Emissions Data</i>	[When combusting Natural Gas]	
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	8.06	35.40
Nitrogen Oxides (NO _x)	4.70	20.58
Lead (Pb)	0.001	0.0003
Particulate Matter (PM _{2.5})	0.91	4.00
Particulate Matter (PM ₁₀)	0.91	4.00
Total Particulate Matter (TSP)	0.91	4.00
Sulfur Dioxide (SO ₂)	0.06	0.30
Volatile Organic Compounds (VOC)	0.66	2.90
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Benzene	0.0003	0.0011
Hexane	0.22	0.95
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---
<p>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.).</p> <p>Primary means of estimating emissions is utilizing emission factors from AP-42 Chapter 1.4 Natural Gas Combustion or Chapter 1.3 Fuel Oil Combustion, combined with actual combustion quantities of natural gas or fuel oil.</p> <p>Previous stack tests have been conducted for carbon monoxide, due to the former Boiler MACT requirements, on the following dates: 9/27/05, 9/12/06, 9/25/07, 9/23/08.</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.1; R13-2560F: 4.1.1, 4.1.9, and 4.1.13.; 45CSR§2-4.1.b; 45CSR§10-3.1.e.
2. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.6; R13-2560F: 4.1.7 and 4.1.17(c); 45CSR§2-3.1; 45CSR16; 40 C.F.R. §60.43c(c).
3. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.2, 6.1.3, 6.1.4, 6.1.7; R13-2560F: 4.1.2, 4.1.3, 4.1.4, 4.1.12 and 4.1.17 (b); 45CSR§2-9.2; 45CSR16; 40 C.F.R. §§60.42c(d) and 60.42c(i).
4. Operational limits/Boiler MACT – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.8, 6.1.9, 6.1.10, 6.1.11; 45CSR34; 40 C.F.R. §63.7495(b); §63.7500(a)(1), Table 3, Item #1; 40 C.F.R. §63.7505(a); 40 C.F.R. §§ 63.7540(a)(12) and (13); 40 C.F.R. §§ 63.7540(a)(10)(i) through (vi); §63.7500(a)(1), Table 3, Item #4; 40 C.F.R. §63.7505(a); §63.7500(a)(3).

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.5, 6.3.1, 6.3.2, 6.3.3, 6.4.1; R13-2560F: 4.1.5, 4.1.10, 4.1.11, 4.1.17 (d) and(e), 4.3.1, 4.4.4, and 4.4.7; 40 C.F.R. §§60.48c(g) and 60.7(b); 45CSR§§2-8.3.c and 8.3.d
2. R30-07300003-2015 (MM01) (Part 3 of 3): 6.2.1, 6.3.1, 6.3.2, 6.3.3, 6.4.3; R13-2560F: 4.1.8, 4.1.10, 4.2.1 and 4.3.1, ; 45CSR§2-3.2; 45CSR16; 40 C.F.R. §60.45c(a); 45CSR§30-5.1.c.
3. R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.5, 6.4.1, 6.4.2, 6.5.1; R13-2560F: 4.1.5, 4.1.11, 4.1.17(a), (b), (d) and (e), 4.4.4, 4.4.5, 4.4.6, and 4.4.7; 45CSR16; 40 C.F.R. §§60.48c(d), (e)(1) and (11), f(1), and (j).
4. R30-07300003-2015 (MM01) (Part 3 of 3): 6.4.4, 6.4.5, 6.4.8, 6.5.3 – 6.5.8; 45CSR34; 40 C.F.R. §63.7555(a); §63.7555(h); §§63.7560(a), (b), and (c); §63.7530(e); §§ 63.7530(f), 63.7545(a), 63.7545(e)(1), (6), (7), (8)(i) and (ii), and 63.9(h); §63.7540(b); §63.7545(f); §63.7545(h); §§63.7550(a), (b), and (c)(1); 40 C.F.R. §63.7550(h)(3).

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 831X	Emission unit name: Boiler #B	List any control devices associated with this emission unit: None – vents via 831E
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 In 2004, Cytec replaced their three existing boilers with two new natural gas, distillate oil co-firing boilers. The boilers generate steam, which is used on the plant site for process heat and for comfort heat.

Manufacturer: English Boiler & Tube, Inc.	Model number: 80-SLG-250	Serial number: 24-011-2
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Construction date: 2004	Installation date: 2004	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 97.9 MMBTU/hr (Natural Gas) ; 93.6 MMBTU/hr (Distillate Oil)

Maximum Hourly Throughput: 97,900 cuft/hr (Natural Gas) ; 658 gal/hr (Distillate Oil)	Maximum Annual Throughput: 858 MM cuft /yr (Natural Gas) ; 5.764 MM gal/yr (Distillate Oil)	Maximum Operating Schedule: 8,760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 97.9 MMBTU/hr (Natural Gas) ; 93.6 MMBTU/hr (Distillate Oil)	Type and Btu/hr rating of burners: Todd Combustion, John Zink Co. LLC 97.9 MMBTU/hr (Natural Gas) ; 93.6 MMBTU/hr (Distillate Oil)
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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.
 Primary Fuel: Natural Gas 97,900 cuft/hr 858 MM cuft /yr
 Secondary Fuel: Distillate Oil 658 gal/hr 5.764 MM gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.2 gr /100 ft3	NA	1,000 BTU/cuft
Distillate Oil	0.05 wt%	NA	142,200 BTU/gal

<i>Emissions Data</i>	[When combusting Natural Gas]	
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	8.06	35.40
Nitrogen Oxides (NO _x)	4.70	20.58
Lead (Pb)	0.001	0.0003
Particulate Matter (PM _{2.5})	0.91	4.00
Particulate Matter (PM ₁₀)	0.91	4.00
Total Particulate Matter (TSP)	0.91	4.00
Sulfur Dioxide (SO ₂)	0.06	0.30
Volatile Organic Compounds (VOC)	0.66	2.90
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Benzene	0.0003	0.0011
Hexane	0.22	0.95
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---
<p>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.).</p> <p>Primary means of estimating emissions is utilizing emission factors from AP-42 Chapter 1.4 Natural Gas Combustion or Chapter 1.3 Fuel Oil Combustion, combined with actual combustion quantities of natural gas or fuel oil.</p> <p>Previous stack tests have been conducted for carbon monoxide, due to the former Boiler MACT requirements, on the following dates: 9/27/05, 9/12/06, 9/25/07, 9/23/08.</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.1; R13-2560F: 4.1.1, 4.1.9, and 4.1.13.; 45CSR§2-4.1.b; 45CSR§10-3.1.e.
2. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.6; R13-2560F: 4.1.7 and 4.1.17(c); 45CSR§2-3.1; 45CSR16; 40 C.F.R. §60.43c(c).
3. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.2, 6.1.3, 6.1.4, 6.1.7; R13-2560F: 4.1.2, 4.1.3, 4.1.4, 4.1.12 and 4.1.17 (b); 45CSR§2-9.2; 45CSR16; 40 C.F.R. §§60.42c(d) and 60.42c(i).
4. Operational limits/Boiler MACT – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.8, 6.1.9, 6.1.10, 6.1.11; 45CSR34; 40 C.F.R. §63.7495(b); §63.7500(a)(1), Table 3, Item #1; 40 C.F.R. §63.7505(a); 40 C.F.R. §§ 63.7540(a)(12) and (13); 40 C.F.R. §§ 63.7540(a)(10)(i) through (vi); §63.7500(a)(1), Table 3, Item #4; 40 C.F.R. §63.7505(a); §63.7500(a)(3).

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.5, 6.3.1, 6.3.2, 6.3.3, 6.4.1; R13-2560F: 4.1.5, 4.1.10, 4.1.11, 4.1.17 (d) and (e), 4.3.1, 4.4.4, and 4.4.7; 40 C.F.R. §§60.48c(g) and 60.7(b); 45CSR§§2-8.3.c and 8.3.d
2. R30-07300003-2015 (MM01) (Part 3 of 3): 6.2.1, 6.3.1, 6.3.2, 6.3.3, 6.4.3; R13-2560F: 4.1.8, 4.1.10, 4.2.1 and 4.3.1, ; 45CSR§2-3.2; 45CSR16; 40 C.F.R. §60.45c(a); 45CSR§30-5.1.c.
3. R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.5, 6.4.1, 6.4.2, 6.5.1; R13-2560F: 4.1.5, 4.1.11, 4.1.17(a), (b), (d) and (e), 4.4.4, 4.4.5, 4.4.6, and 4.4.7; 45CSR16; 40 C.F.R. §§60.48c(d), (e)(1) and (11), f(1), and (j).
4. R30-07300003-2015 (MM01) (Part 3 of 3): 6.4.4, 6.4.5, 6.4.8, 6.5.3 – 6.5.8; 45CSR34; 40 C.F.R. §63.7555(a); §63.7555(h); §§63.7560(a), (b), and (c); §63.7530(e); §§ 63.7530(f), 63.7545(a), 63.7545(e)(1), (6), (7), (8)(i) and (ii), and 63.9(h); §63.7540(b); §63.7545(f); §63.7545(h); §§63.7550(a), (b), and (c)(1); 40 C.F.R. §63.7550(h)(3).

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: T83-F01	Emission unit name: Distillate Fuel Oil Storage Tank	List any control devices associated with this emission unit: None – vents via T83-EM1
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Horizontal fixed roof storage tank, supplying alternate fuel to steam generating boilers.

Manufacturer: Highland Tank & Mfgr Co.	Model number: NA	Serial number: NA
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Construction date: 2004	Installation date: 2004	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 12,000 gallons

Maximum Hourly Throughput: 1,315 gal	Maximum Annual Throughput: 11,526,000 gal	Maximum Operating Schedule: 8,760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes ___ <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not Applicable	Type and Btu/hr rating of burners: Not Applicable

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.
 Not Applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not Applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	---	---
Nitrogen Oxides (NO _x)	---	---
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	---	---
Particulate Matter (PM ₁₀)	---	---
Total Particulate Matter (TSP)	---	---
Sulfur Dioxide (SO ₂)	---	---
Volatile Organic Compounds (VOC) No. 2 Distillate Fuel Oil	<0.1	0.026
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
---	---	---
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---
<p>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.).</p> <p>EPA Tanks 4.0</p>		

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.

1. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 6.1.3 R13-2560F: 4.1.3

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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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 6.4.2 R13-2560F: 4.1.17(a) and (b), 4.4.5, 4.4.6, and 4.4.7; 45CSR16; 40 C.F.R. §§60.42c(h)(1) and 60.48c(f)(1).

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 65BL	Emission unit name: Diesel Engine	List any control devices associated with this emission unit: None – vents via 65V05
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Diesel engine powering emergency electric generator for wastewater treatment critical equipment.

Manufacturer: Cummins	Model number: NT 855C2	Serial number: 56207
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Construction date: 1988	Installation date: 1988	Modification date(s): No Modifications
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 355 hp

Maximum Hourly Throughput: NA	Maximum Annual Throughput: NA	Maximum Operating Schedule: 8,760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 355 hp	Type and Btu/hr rating of burners: NA
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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.
 #2 Lo-sulfur Diesel Fuel

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Low-Sulfur Distillate Oil	0.05 wt. %	NA	142,200 BTU/gal

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY (300 hr)
Carbon Monoxide (CO)	2.37	0.36
Nitrogen Oxides (NO _x)	0.45	0.07
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	0.78	0.12
Particulate Matter (PM ₁₀)	0.78	0.12
Total Particulate Matter (TSP)	0.78	0.12
Sulfur Dioxide (SO ₂)	0.73	0.11
Volatile Organic Compounds (VOC)	0.002	0.0003
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY (300 hr)
Benzene	NA	<0.001
Toluene	NA	<0.001
Formaldehyde	NA	<0.001
Acetaldehyde	NA	<0.001
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---
<p>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.).</p> <p>AP-42 / Stack test data</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.9.; 45CSR34; 40 C.F.R. 63 Subpart ZZZZ §63.6595(a)(1).
2. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.10. - 7.1.15.; 45CSR34; 40 C.F.R. 63 Subpart ZZZZ §63.6602, Table 2c, Item#1; §63.6625(h); §63.6605(b); §§63.6625(e) and 63.6625(e)(2); 40 C.F.R. §63.6640(a), Table 6, Item # 9; §63.6625(f); §63.6625(i); §§63.6640(f)(1), (2), and (3).

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 7.4.2. - 7.4.4., 7.5.1. - 7.5.3.; 40 C.F.R. §§63.6655(e) and 63.6655(e)(2); §§63.6655(f) and 63.6655(f)(1); §§63.6660(a), (b), and (c); §63.6640(b); §63.6640(e); §63.6650(f); 45CSR34.
2. R30-07300003-2015 (MM01) (Part 3 of 3) 7.4.2. - 7.4.4., 7.5.1. - 7.5.3.; 40 C.F.R. §§63.6655(e) and 63.6655(e)(2); §§63.6655(f) and 63.6655(f)(1); §§63.6660(a), (b), and (c); §63.6640(b); §63.6640(e); §63.6650(f); 45CSR34.

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: E04P	Emission unit name: Emergency Diesel Engine (Stationary Fire Pump) – Bldg. 97	List any control devices associated with this emission unit: None – vents via E04E
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Fire protection system emergency fire pump power engine.
 Manufactured date = 2010.
 See attached engine nameplate photo at the end of this Attachment E.

Manufacturer: Clarke (John Deere)	Model number: JU6H-UFAD58	Serial number: PE 6068L 129305
Construction date: 12/2010	Installation date: 12/2010	Modification date(s): None

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 175 hp

Maximum Hourly Throughput: NA	Maximum Annual Throughput: NA	Maximum Operating Schedule: 500 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
Maximum design heat input and/or maximum horsepower rating: 175 hp	Type and Btu/hr rating of burners: NA

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.

Diesel Fuel #2 Ultra Lo-sulfur Diesel Fuel

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel Fuel	15 ppm	0.01%	142,200 BTU/gal

Emissions Data		
Criteria Pollutants	Potential Emissions 500 hr/yr	
	PPH	TPY
Carbon Monoxide (CO)	1.01	0.26
Nitrogen Oxides (NO _x)	1.15	0.29
Lead (Pb)	NA	NA
Particulate Matter (PM _{2.5})	0.06	0.02
Particulate Matter (PM ₁₀)	0.06	0.02
Total Particulate Matter (TSP)	0.06	0.02
Sulfur Dioxide (SO ₂)	0.36	0.09
Volatile Organic Compounds (VOC)	1.15	0.29
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Trace	---	---
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Trace	---	---
<p>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.).</p> <p>NO_x, CO, VOC & PM factors from Tier 3 Emission certification standards. SO₂ from AP-42.</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.1., 7.1.2.; 45CSR16; 45CSR34; 40 C.F.R. 60 Subpart IIII §§60.4205(c), Table 4 to Subpart IIII; 40 C.F.R. 63 Subpart ZZZZ §63.6590(c).
2. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.3. - 7.1.8.; 45CSR16; 40 C.F.R. 60 Subpart IIII §§60.4206, 60.4207(b), 60.4211(a), 60.4211(c), 60.4211(f), (g) and (g)(2).

NA 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.2., 7.1.3.; 45CSR16; 40 C.F.R. 60 Subpart IIII §§60.4205(c), 60.4207(b), Table 4 to Subpart IIII.
2. R30-07300003-2015 (MM01) (Part 3 of 3) 7.2.1., 7.4.1.; 45CSR16; 45CSR§30-5.1.c.; 40 C.F.R. 60 Subpart IIII §§4209(a), 60.4214(b).

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: E02P	Emission unit name: Emergency Diesel Engine (Stationary Fire Pump)	List any control devices associated with this emission unit: None – vents via E02E
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Fire protection system emergency fire pump power engine.

Manufacturer: John Deere	Model number: 6068HFC28	Serial number: PE6068L222710
Construction date: 2012	Installation date: 2012	Modification date(s): None

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 183 hp

Maximum Hourly Throughput: NA	Maximum Annual Throughput: NA	Maximum Operating Schedule: 100 hr/yr (expected maximum annual operating hours)
---	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 183 hp	Type and Btu/hr rating of burners: NA
--	---

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.
 Diesel Fuel #2 (low sulfur)

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel Fuel	0.05 wt. %	NA	142,200 BTU/gal

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	1.04	0.052
Nitrogen Oxides (NO _x)	5.67	0.284
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	0.06	0.003
Particulate Matter (PM ₁₀)	0.06	0.003
Total Particulate Matter (TSP)	0.06	0.003
Sulfur Dioxide (SO ₂)	0.38	0.019
Volatile Organic Compounds (VOC)	0.45	0.023
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Trace	---	---
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
Trace	---	---
<p>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.).</p> <p>CO & PM factors from Tier 3 Emission certification standards. NO_x, SO₂ and VOC from AP-42.</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.1., 7.1.2.; 45CSR16; 45CSR34; 40 C.F.R. 60 Subpart IIII §§60.4205(c), Table 4 to Subpart IIII; 40 C.F.R. 63 Subpart ZZZZ §63.6590(c).
2. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.3. - 7.1.8.; 45CSR16; 40 C.F.R. 60 Subpart IIII §§60.4206, 60.4207(b), 60.4211(a), 60.4211(c), 60.4211(f), (g) and (g)(2).

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.2., 7.1.3.; 45CSR16; 40 C.F.R. 60 Subpart IIII §§60.4205(c), 60.4207(b), Table 4 to Subpart IIII.
2. R30-07300003-2015 (MM01) (Part 3 of 3) 7.2.1., 7.4.1.; 45CSR16; 45CSR§30-5.1.c.; 40 C.F.R. 60 Subpart IIII §§4209(a), 60.4214(b).

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: E03P	Emission unit name: Emergency Diesel Engine (Stationary Fire Pump)	List any control devices associated with this emission unit: None – vents via E03E
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Fire protection system emergency fire pump power engine.

Manufacturer: John Deere	Model number: 6068HFC28	Serial number: PE6068L222710
Construction date: 2013	Installation date: 2013	Modification date(s): None

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 183 hp

Maximum Hourly Throughput: NA	Maximum Annual Throughput: NA	Maximum Operating Schedule: 100 hr/yr (expected maximum annual operating hours)
---	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
Maximum design heat input and/or maximum horsepower rating: 183 hp	Type and Btu/hr rating of burners: NA

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.
 Diesel Fuel #2 (low sulfur)

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel Fuel	0.05 wt. %	NA	142,200 BTU/gal

Emissions Data		
Criteria Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Carbon Monoxide (CO)	1.04	0.052
Nitrogen Oxides (NO _x)	5.67	0.284
Lead (Pb)	---	---
Particulate Matter (PM _{2.5})	0.06	0.003
Particulate Matter (PM ₁₀)	0.06	0.003
Total Particulate Matter (TSP)	0.06	0.003
Sulfur Dioxide (SO ₂)	0.38	0.019
Volatile Organic Compounds (VOC)	0.45	0.023
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Trace	---	---
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
Trace	---	---
<p>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.).</p> <p>CO & PM factors from Tier 3 Emission certification standards. NO_x, SO₂ and VOC from AP-42.</p>		

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.

1. Emission limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.1., 7.1.2.; 45CSR16; 45CSR34; 40 C.F.R. 60 Subpart IIII §§60.4205(c), Table 4 to Subpart IIII; 40 C.F.R. 63 Subpart ZZZZ §63.6590(c).
2. Operational limits – R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.3. - 7.1.8.; 45CSR16; 40 C.F.R. 60 Subpart IIII §§60.4206, 60.4207(b), 60.4211(a), 60.4211(c), 60.4211(f), (g) and (g)(2).

____ 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.)

1. R30-07300003-2015 (MM01) (Part 3 of 3): 7.1.2., 7.1.3.; 45CSR16; 40 C.F.R. 60 Subpart IIII §§60.4205(c), 60.4207(b), Table 4 to Subpart IIII.
2. R30-07300003-2015 (MM01) (Part 3 of 3) 7.2.1., 7.4.1.; 45CSR16; 45CSR§30-5.1.c.; 40 C.F.R. 60 Subpart IIII §§4209(a), 60.4214(b).

Are you in compliance with all applicable requirements for this emission unit? Yes No

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

ATTACHMENT G

Air Pollution Control Device Forms

See enclosed CD for electronic files

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: 226C	List all emission units associated with this control device. 226X, 226Y	
Manufacturer: Cyanamid	Model number: In-house design	Installation date: 1987
Type of Air Pollution Control Device:		
<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input checked="" 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
HCL	100%	98%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).		
Water Flow Rate >= 3 GPM		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H		
If No, Provide justification. Control Device 226C is not a subject Pollutant-Specific Emissions Unit as defined at 40 C.F.R. §64.1, because this control device has potential pre-control device annual emissions of applicable regulated air pollutants that are less than major source levels, and thus is exempt per 40 C.F.R. §64.2(a)(3).		
Describe the parameters monitored and/or methods used to indicate performance of this control device.		
Presence or absence of flow is monitored with a flow switch. Flow meter monitors flow rate.		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: 226D	List all emission units associated with this control device. 226X, 226Y	
Manufacturer: Cyanamid	Model number: In-house design	Installation date: 1987
Type of Air Pollution Control Device:		
<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input checked="" 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
HCL	100%	98%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).		
Water Flow Rate >= 3 GPM		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H		
If No, Provide justification. Control Device 226D is not a subject Pollutant-Specific Emissions Unit as defined at 40 C.F.R. §64.1, because this control device has potential pre-control device annual emissions of applicable regulated air pollutants that are less than major source levels, and thus is exempt per 40 C.F.R. §64.2(a)(3).		
Describe the parameters monitored and/or methods used to indicate performance of this control device.		
Presence or absence of flow is monitored with a flow switch. Flow meter monitors flow rate.		

ATTACHMENT H

Compliance Assurance Monitoring (CAM) Form

See enclosed CD for electronic files

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: **Not Applicable**

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.

** **Rationale for CAM Exemption:** The facility does not own or operate a subject pollutant-specific emissions unit as defined at 40 C.F.R. §64.1, because all Site Services Area control devices have potential pre-control device annual emissions of applicable regulated air pollutants that are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

3) ^a 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	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
Not Applicable					
<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

^a 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).

^b 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).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA			
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 monitoring data and information for EACH indicator selected for EACH 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.			
4a) PSEU Designation: Not Applicable	4b) Pollutant:	4c) ^a Indicator No. 1:	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:			
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:			
^c 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.):			
^d 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:			

^a 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.

^b 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.

^c 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.

^d 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:
 Not Applicable

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: