CYTEC

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

September 19, 2016

Mr. William F. Durham, 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 - R30-07300003-2012 (MM02) Surfactants (Part 1 of 3) Modified July 6, 2015

SUBJECT: Title V Permit – Renewal Application

Dear Director Durham:

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 renewal application contains Confidential Business Information (CBI) and as such, includes two copies containing CBI and an additional copy with redaction per the requirements of 45 CSR 31.

The DAQ Title V group most recently issued Minor Modification MM02 to the referenced permit on July 6, 2015. Cytec is not requesting any changes to the permit as issued (MM02), during this renewal process.

Should you have additional questions regarding this submittal please contact me at 304-665-3668.

Very truly yours,

Cytec Industries Inc.

Jason Canterbury
Environmental Engineer

Enclosure

Table of Contents

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

1. **Name of Applicant (As registered with the WV Secretary of State's Office):** Cytec Industries Inc.	2. **Facility Name or Location:** Willow Island Plant
3. **DAQ Plant ID No.:** 0 7 3 — 0 0 0 0 3	4. **Federal Employer ID No. (FEIN):** 2 2 3 2 6 8 6 6 0

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? Prior to 01/01/1950
☒ Permit Renewal — What is the expiration date of the existing permit? 04/03/2017
☐ Update to Initial/Renewal Permit Application

6. **Type of Business Entity:** ☒ Corporation ☐ Governmental Agency ☐ LLC ☐ Partnership ☐ Limited Partnership	7. **Is the Applicant the:** ☐ Owner ☐ Operator ☒ Both If the Applicant is not both the owner and operator, please provide the name and address of the other party.
8. **Number of onsite employees:** ~ 165 employees	

9. **Governmental Code:**

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. **Business Confidentiality Claims**

Does this application include confidential information (per 45CSR31)? ☒ Yes ☐ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	**State:** WV	**Zip:** 26134-9801
Telephone Number: (304) 665-3485	**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:** ☒ 17 or ☐ 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? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☐ Yes ☒ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Ohio, Pennsylvania
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ 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: Michael A. Young		**Title:** Operations Director, Willow Island Plant
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	**State:** WV	**City:** Willow Island
Telephone Number: (304) 665-3461	**Fax Number:** (304) 665-3616	
E-mail address: mike.young@cytec.com		
Environmental Contact: Jason Canterbury		**Title:** Environmental Engineer
Street or P.O. Box: #1 Heilman Avenue		
City: Willow Island	**State:** WV	**City:** Willow Island
Telephone Number: (304) 665-3668	**Fax Number:** (304) 665-3674	
E-mail address: jason.canterbury@solvay.com		
Environmental Contact: Jeff McKinney		**Title:** 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.mckinney@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

Provide a general description of operations.

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.

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.

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.

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.

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.

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

18. Applicable Requirements Summary **Note: Facilitywide applicable requirements are below.**	
Instructions: Mark all applicable requirements.	
☒ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☒ Section 111 NSPS	☒ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☒ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☒ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☒ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☒ Emissions Trading and Banking (45CSR28)	☐ Compliance Assurance Monitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations

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.

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

a. 40 C.F.R. 60, Subpart 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 Surfactants manufacturing unit.

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 Surfactants manufacturing unit.

☒ Permit Shield

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

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

c. 40 C.F.R. 60, Subpart 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." 40 C.F.R. 60, Subpart Kb, as amended on October 15, 2003, applies to each storage vessel with a capacity greater than or equal to 75 m3 that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. Subpart Kb also does not apply to storage vessels with a capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m3 but less than 151 m3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa. There are no storage tanks in the Surfactants manufacturing unit which are subject to 40 C.F.R. 60, Subpart Kb. Tanks S-1T1, S-1T2, S-2T1, S-2T2, S-3T2, S-4T1, S-4T2, and S-7T1 were constructed prior to July 23, 1984. Tanks 1-4T2, S-5T2, S-6T2 (Compartment A), S-6T2 (Compartment B), S-6T2 (Compartment C), S-T-3 (Compartment A), S-T-3 (Compartment B), S-T-3 (Compartment C), S-T-3 (Compartment D), N-1T1 (Compartment A), N-1T1 (Compartment B), N-1T1 (Compartment C), and N-1T1 (Compartment D) were constructed after July 23, 1984, but have a capacity less than 75 m3. Tanks S-3T1 (modified 1992), S-5T1, S-7T2, S-8T1, S-T-5, and WT-5 were constructed or modified after July 23, 1984, but have a capacity greater than or equal to 75 m3 but less than 151 m3 and store a liquid with a maximum true vapor pressure less than 15.0 kPa.

d. 40 C.F.R. 60, Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." The Surfactants manufacturing unit 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 Surfactants manufacturing unit 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 Surfactants manufacturing unit 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 Surfactants manufacturing unit 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 Surfactants manufacturing unit 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 Surfactants manufacturing unit.

j. 40 C.F.R. 63, Subparts F, and G– "National Emission standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (HON)." 40 C.F.R. 63, Subparts F, and G 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).

k. 40 C.F.R. 63, Subpart DD – "National Emission Standards for Hazardous Air Pollutants From Off-Site Waste and Recovery Operations." The Surfactants manufacturing unit 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).

☒ 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.

l. 40 C.F.R. 63, Subpart JJJ – "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins." The Surfactants manufacturing unit does not produce the materials listed in 40 C.F.R. §63.1310.

m. 40 C.F.R. 63, Subpart PPPP – "National Emission standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products." The Surfactants manufacturing unit does not produce an intermediate or final product that meets the definition of "surface coated" plastic part.

n. 40 C.F.R. 63, Subpart WWWW – "National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production." The Surfactants manufacturing unit 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.

o. 40 C.F.R. 63, Subpart DDDDD – "National Emissions Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters." The Surfactants manufacturing unit does not own or operate an industrial, commercial, or institutional boiler or process heater as defined in 40 C.F.R. §63.7575.

p. 40 C.F.R. 64 – "Compliance Assurance Monitoring." Per 40 C.F.R. §64.2(a)(3), emission points 04DE, 03BE, 04AE, and 05AE are not subject to the CAM Rule because pre-control device emissions from these sources are less than 100 tons per year. Although pre-control device emissions for emission point 07BE are greater than 100 tons per year, this emission unit is exempted by 40 C.F.R. §64.2(b)(1)(vi) because an existing continuous compliance determination method was specified in the initial Title V permit.

q. 45CSR2 – "To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers." The Surfactants manufacturing unit does not contain any fuel burning units.

r. 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, the Surfactants manufacturing unit is not subject to 45CSR17 because it is subject to the fugitive particulate matter emission requirements of 45CSR7.

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

45CSR§30-5.1.c.2.A.; 45CSR13, R13-2120, 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.C. Deviations – Compliance is demonstrated by Condition Number 3.5.8.

45CSR30-4.3.h.1.B. New applicable requirement – 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.

☒ 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? ☒ Yes ☐ No

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

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
Surfactants		
R30-07300003-2012 (Part 1 of 3), MM02	07/06/2015 (modified)	
R13-2120I	04/07/2015	
Polymer Additives		
R30-07300003-2016 (Part 2 of 3), MM01	08/02/2016 (modified)	
R13-2156X	04/04/2016	
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		
R13-2156W (& prior versions)	10/16/2015	
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	

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]	17.50
Particulate Matter (PM_{10})[1]	17.50
Total Particulate Matter (TSP)	20.97
Sulfur Dioxide (SO_2)	42.04
Volatile Organic Compounds (VOC)	209.80
Hazardous Air Pollutants[2]	Potential Emissions
Acrylamide	0.09
Acrylic Acid	0.20
Benzene	0.25
Dimethyl Formamide	2.09
Ethylbenzene	0.26
Formaldehyde	0.48
Hexane	1.90
Hydrochloric Acid	<0.01
Maleic Anhydride	0.18
Methanol	23.03
Methyl Isobutyl Ketone	40.62
Toluene	65.01
Toluene-2,4-Diisocyanate	<0.01
Triethylamine	7.34
Xylenes (isomers and mixtures)	1.55
Total HAP	143.00

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_2O)	1.05
Methane (CH_4)	149.46
Hydrofluorocarbons (HFCs)	0.30
Perfluorocarbons (PFCs)	---
Sulfur hexafluoride (SF_6)	---
CO_2 equivalent (CO_2e)	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)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	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.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	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.
☐	7.	Blacksmith forges.
☒	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☒	14.	Demineralized water tanks and demineralizer vents.
☒	15.	Drop hammers or hydraulic presses for forging or metalworking.
☒	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.
☐	17.	Emergency (backup) electrical generators at residential locations.
☒	18.	Emergency road flares.
☐	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)		
☐	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:
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	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.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☒	28.	Flares used solely to indicate danger to the public.
☒	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.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☒	33.	Hydraulic and hydrostatic testing equipment.
☒	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☒	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☒	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	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.)
☒	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.
☒	43.	Process water filtration systems and demineralizers.
☒	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.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☒	51.	Steam cleaning operations.
☒	52.	Steam leaks.
☐	53.	Steam sterilizers.
☒	54.	Steam vents and safety relief valves.
☐	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.
☒	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.
☐	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☒	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.

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

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

a. Certification of Truth, Accuracy and Completeness

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

b. Compliance Certification

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

Responsible official (type or print)

Name: Michael A. Young	Title: Operations Director, Willow Island Plant

Responsible official's signature:

Signature: _____ Signature Date: **September 19, 2016**
(Must be signed and dated in blue ink)

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

☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☒	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/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

COVER DOCUMENT FOR A CLAIM OF CONFIDENTIALITY
45CSR31

On behalf of CYTEC Industries Inc. Willow Island plant,

Name: Michael A. Young
Position: Operations Director, Willow Island Plant
Reason for Submission: Application for Title V Permit Renewal
Surfactants Manufacturing Unit R30-07300003-2012 (Part 1 of 3)

Designee:
Name: Michael A. Young
Address: CYTEC Industries Inc.
1 Heilman Avenue
Willow Island, WV 26134
Phone: (304) 665-3607
Fax: (304) 665-3616

Identification of Claimed Confidential Information	Rationale for Confidential Claim	Confidential Treatment Time Period
Process Flow Diagram	Business Confidential / Trade Secret Data for all Claimed Confidential / Maintain Advantage in Business Competitive Marketplace.	**Permanently** for all Claimed Confidential.

The Claim of Confidentiality has not expired, been waived or withdrawn. (45-31-4.1.a)

CYTEC takes reasonable measures to protect the confidentiality of this information, which is not nor has been readily available or attainable to anyone without CYTEC's knowledge, approval or authorization. (45-31-4.1.b, 4.1.c)

No statute specifically requires disclosure of this information. (45-31-4.1.d)

Additionally, disclosure of this information will cause substantial harm to CYTEC's competitive business position for this process. (45-31-4.1.e.1)

The non-confidential information has been removed and replaced with "Redacted – Claim of Confidentiality", in the non-confidential application.

No emissions data is claimed confidential.

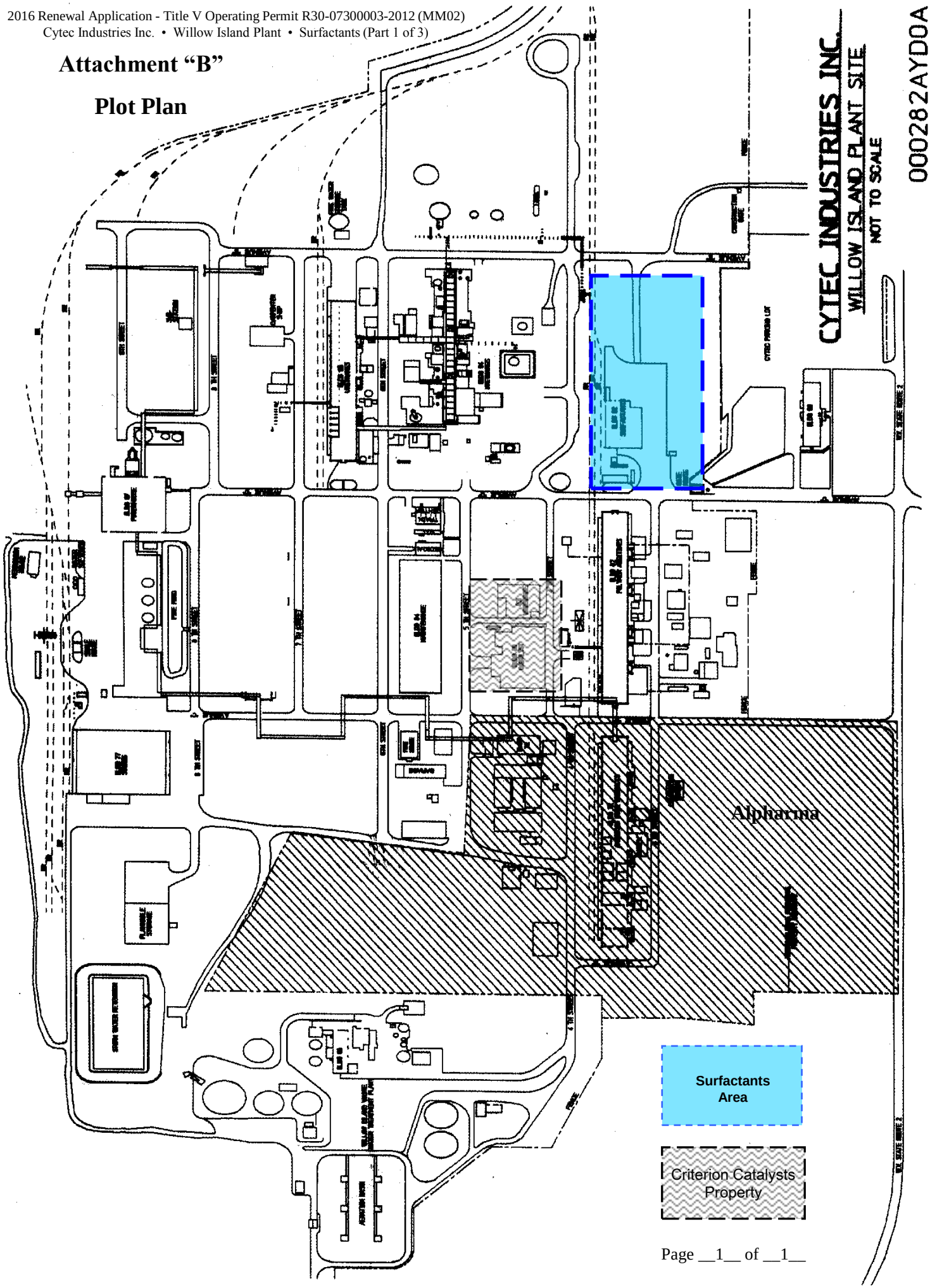
	Operations Director, Willow Island Plant	**September 19, 2016**
Signed: Michael A. Young	Title	Date Signed

Attachment A

Area Map

Attachment "B"

Plot Plan



ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
04BE	None	1-4T2	Addition/Mix Tank	760 gallons	1998
04CE Industrial Hygiene Vent for Surfactants	None	1-2SF1	Pressure Filter Sampling Port	6,000 acfm (blower)	The Industrial Hygiene Vent was installed in 1998. The emission sources vented to the IH vent have various installation dates
		1-3T1	Precoat Tank		
		1-3SF1	Pressure Filter Sampling Port		
		1-DRUM	Drumming Station		
		2-3K2	Reactor Sampling Port		
		2-2K2	Hold Tank Sampling Port		
		2-4K1	Prep Kettle Sampling Port		
		2-3K1	Sulfonation Reactor Manway Hood		
		2-3K1	Sulfonation Reactor Sampling Port		
		2-2K1	Esterification Reactor Manway Hood		
		2-2K1	Esterification Reactor Sampling Port		
		1-2T3	Precoat Tank Manway Hood		
		1-4SF1	Pressure Filter Sampling Port		
		WH-4T1	Drumming Tank Sampling Port		
		2-3HOP1	Solids Charging Hopper		
		3-DRUM	Drumming Station		

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

04DE	Seal Pot 3-4T2 Caustic Scrubber 3-4SC1 Water Scrubber 3-4SC2	2-3K2, 3-2CD2, 3-2CD3	Reactor and Condensers	8,100 gallons	1998
		2-2K2, 3-2CD2, 3-2CD3	Reactor and Condensers	8,100 gallons	1998
		2-4T3	Drum Dryer/Feed Hold Tank	9,135 gallons	1998
		3-2VP1	Vacuum Pump System	5 mmHg	1998
		1-2T4	Alcohol Receiver	3,918 gallons	1998
		2-4K1, 3-4CD1,	Prep Kettle and Condenser	16,460 gallons	1998
		3-4T1	Decanter	590 gallons	1998
		3-4VJ1, 3-4VJ2, 3-4VJ3	Vacuum Jets	5 mmHg	2010
		3-2T1	Decanter	520 gallons	1976
		3-2VJ1, 3-2VJ2, 3-2VJ3, RF-2CD2, RF-2CD3, RF-2CD4	Vacuum Jets and Condensers	5 mmHg	1976
		1-2T1	Alcohol Receiver	2,070 gallons	1976
		3-4T3	Scrubber Liquor Recirculation Tank	930 gallons	1998
		WH-4T1	Drumming Tank	13,515 gallons	1998
		1-4T1	Alcohol Receiver	2,000 gallons	1998
		1-2T2	Hot Well	178 gallons	1976
		1-4T3	Hot Well	187 gallons	2010
		2-2K1, 3-2CD1	Esterification Reactor and Condenser	12,000 gallons	1976
		2-3K1, 3-3CD1	Sulfonation Reactor and Condenser	12,000 gallons	1976
08CE	None	1-2ST1	Hold Tank	1,145 gallons	1976
03BE	Dust Collector 3-3DC1	3-3BS1	MBS Silo	100,000 lbs	2004
04AE	Dust Collector 3-4DC1	3-4BS1	Sodium Sulfite Silo	100,000 lbs	2004
05BE	Dust Collectors WH-4DC1 WH-4DC2	WH-4BB1, WH-4BB2	Bulk Bag Unloaders	30,000 lb/hr	2015

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

05AE	Dust Collector 3-4DC2	3-4BS2	MBS Silo	100,000 lbs	1998
08BE	None	1-4SF1	Pressure Filter Manway Hood	700 gallons	1998
07BE	Scrubber 3-3SC1	2-3DD1	Double Drum Dryer	750 lb/hr	2012
TS-1E	None	TS-1	Truck Loading Station	300 gpm	1976
TS-2E	None	TS-2	Truck Loading Station	300 gpm	1976
TS-3E	None	TS-3	Truck Loading Station	300 gpm	1976
TS-4E	None	TS-4	Truck Loading Station	300 gpm	1998
TS-5E	None	TS-5	Truck Loading Station	300 gpm	1998
RS-1E	None	RS-1	Railcar Loading Station	300 gpm	1975
RS-2E	None	RS-2	Railcar Loading Station	300 gpm	1998
RS-3E	None	RS-3	Railcar Loading Station	300 gpm	1998
021E	None	S-1T1	OT-75 Storage Tank	26,662 gallons	1977
019E	None	S-2T1	MA-80I Storage Tank	25,000 gallons	1976
015E	None	S-3T1	OT-35 Unwashed Storage Tank	27,555 gallons	1976
013E	None	S-4T1	2-EH Storage	32,314 gallons	1976
011E	None	S-5T1	MIBC Storage Tank	25,000 gallons	1994
009E	None	S-T-5	23A Storage Tank	25,000 gallons	1989
0A7E	None	S-T-3 Compartment A	IBOH Storage Tank	6,000 gallons	1988
0B7E	None	S-T-3 Compartment B	DEM Storage Tank	7,750 gallons	1988
0C7E	None	S-T-3 Compartment C	PG or DEG Storage Tank	7,750 gallons	1988
0D7E	None	S-T-3 Compartment D	IPAL or PG Storage Tank	6,000 gallons	1988
005E	None	S-8T1	OT-35W Storage Tank	27,535 gallons	1998
003E	None	S-7T1	MAA Storage Tank	31,712 gallons	1977
022E	None	S-1T2	OT-GPG Storage Tank	25,000 gallons	1976
020E	None	S-2T2	OT-70PG Storage Tank	25,000 gallons	1976

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

016E	None	S-3T2	2-EH Storage Tank	32,587 gallons	1976
014E	None	S-4T2	OT-35W Storage Tank	10,760 gallons	1975
012E	None	S-5T2	Storage Tank	10,000 gallons	1994
010E-1	None	S-6T2 Compartment A	Armeen Storage Tank	6,820 gallons	1998
010E-2	None	S-6T2 Compartment B	Armeen Storage Tank	13,200 gallons	1998
010E-3	None	S-6T2 Compartment C	Armeen Storage Tank	6,820 gallons	1998
008E	None	S-7T2	OT-75 Storage Tank	27,535 gallons	1998
026E	None	W-T5	Effluent Equalization Hold Tank	27,535 gallons	1998
A28E	None	N-1T1 Compartment A	DSS 70% in 23A Storage Tank	7,350 gallons	2007
B28E	None	N-1T1 Compartment B	DSS 70% in 23A Storage Tank	7,750 gallons	2007
C28E	None	N-1T1 Compartment C	DSS 70% in 23A Storage Tank	7,750 gallons	2007
D28E	None	N-1T1 Compartment D	DSS 70% in 23A Storage Tank	7,850 gallons	2007

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-3T2	2-EH Storage Tank	None – vents via 016E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Metal Equipment Co.	NA	CTW-14228
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
32,587 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.035	0.017

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible 2-ethylhexanol usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-4T1	2-EH Storage Tank	None – vents via 013E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Metal Equipment Co.	NA	CTW-14229
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
32,314 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.035	0.017

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible 2-ethylhexanol usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-T-5	23A Storage Tank	None – vents via 009E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316 Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Sistersville Tank Works	NA	88-205

Construction date:	**Installation date:**	**Modification date(s):**
1988	1989	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
25,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	7.838	0.423

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible 23A ethanol usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-4T2	Addition/Mix Tank	None – vents via 04BE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS 760 gallon tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding	NA	1258
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.74	0.27

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
	---	---

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Calculation performed by taking worst case scenario product (DSS-100) and assuming maximum possible VOC emissions.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-2T1	Alcohol Receiver	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
2000 gallon 316SS vertical alcohol receiver

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine MFG Co.	NA	9347-B
Construction date:	**Installation date:**	**Modification date(s):**
1975	1976	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,070 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.011	0.049

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Worst case product stripping conditions calculated in Emission Master 7.2.0.2. for hourly rate. Yearly rate assumes product made continuously over the year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-2T4	Alcohol Receiver	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vertical 316SS 4000 gallon Alcohol Receiver

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co	NA	1251
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
3,918 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.058	0.255

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Worst case product stripping conditions calculated in Emission Master 7.2.0.2. for hourly rate. Yearly rate assumes product made continuously over the year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-4T1	Alcohol Receiver	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vertical 2000 gallon 316SS Alcohol Receiver

Manufacturer:	**Model number:**	**Serial number:**
Capital City Iron Works	NA	44869
Construction date:	**Installation date:**	**Modification date(s):**
1988	1997	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.011	0.049

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Worst case product stripping conditions calculated in Emission Master 7.2.0.2. for hourly rate. Yearly rate assumes product made continuously over the year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-6T2 Compartment A	Armeen Storage Tank	None – vents via 010E-1

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Compartmental Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,820 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.045	0.005

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible Armeen TMD usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-6T2 Compartment B	Armeen Storage Tank	None – vents via 010E-2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Compartmental Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
13,200 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.045	0.005

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible Armeen OMD usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-6T2 Compartment C	Armeen Storage Tank	None – vents via 010E-3

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Compartmental Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	1300
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,820 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.045	0.005

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible Armeen OMD usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-4T3	Drum Dryer/Feed Hold Tank	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316ss Vertical 9135 gallon tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding co.	NA	1253
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
9,135 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.338	1.482

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Worst case product temporarily stored in tank (in this case, A-22R MA) model from Emission Master 7.2.0.2

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-2T1	Decanter	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS 520 gallon Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine MFG Co	NA	9347-A

Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Rates are the same as 2-2K1, as any pollutants that leave the decanter leave 2-2K1 first.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.8., 4.4.9.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 6.2.1. - 6.2.3., 6.4.1., 6.4.2.; R13-2120I 4.1.12., 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-4T1	Decanter	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
600 gallon 316SS Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	1257
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.009	0.001
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Methanol	0.001	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Rates are equivalent to 2-4K1 rates, as anything that leaves through the decanter leaves via 2-4K1.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-T-3 Compartment B	DEM Storage Tank	None – vents via 0B7E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316 Stainless horizontal compartmented tank

Manufacturer:	**Manufacturer:**	**Manufacturer:**
Sistersville Tank Works	Sistersville Tank Works	Sistersville Tank Works
Construction date:	**Installation date:**	**Modification date(s):**
1988	1988	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
7,750 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.033	0.003

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible diethyl maleate usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3DD1	Double Drum Dryer	Scrubber 3-3SC1 – vents via 07BE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Double drum dryer w/ Enclosure

Manufacturer:	**Model number:**	**Serial number:**
Phoenix Drum Dryer	PE132FS	

Construction date:	**Installation date:**	**Modification date(s):**
	2012	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Two 36” diameter drums

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X__ 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 ($PM_{2.5}$)	0.0024	
Particulate Matter (PM_{10})	0.0024	
Total Particulate Matter (TSP)	0.0024	
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	6.7	
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol (from AY-100)	1.08	
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Calculation performed by taking worst case scenario product (AY-100 for both VOC and HAP) and assuming maximum possible VOCs (minus minimum permitted efficiencies).

Maximum hourly AY-100 production rate = 293 lb AY-100/hr
450 lbs AY-65 (65% solids) required to make 293 lbs AY-100 (100% solids)
Of the 450 lbs AY-65, 112.6 lbs are ethanol, 21.6 lbs are methanol (as denaturant).
Scrubber 3-3SC1 removes 95% percent of the volatiles.
Pound per hour of VOCs emitted from 2-3DD1 = 112.6 + 21.6 = 134.2 lb VOC/hr
Pound per hour of VOCs emitted after Scrubber 3-3SC1 = 6.7 lb VOC/hr
Pound per hour of HAPs (methanol) emitted from 2-3DD1 = 21.6 lb HAP/hr
Pound per hour of HAPs (methanol) emitted after Scrubber 3-3SC1 = 1.08 lb HAP/hr

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 – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Visible emissions limit – 45CSR§7-3.1.; R30-07300003-2012 (MM02): 4.1.2.; R13-2120I 4.1.2.
3. PM emission limit – 45CSR§7-4.1.; R30-07300003-2012 (MM02): 4.1.3.

   --WVDAQ Regulation 7 (Section 4.1)
   Vent ID# 07BE
   a. Source Operation Generating PM – Drum Dryer w/ AY-100 (ID# 2-3DD1).
   b. Source Operation Process Type = Type 'a' (physical change)
   c. Source Operation Process Weight Rate = 250 lb/hr
   d. Maximum Allowable Total Stack Emission Rate (per Reg. 7 Table 45-7A) = 0.3 lb/hr
   e. Calculated Maximum Stack Emission Rate = < 0.001 lb/hr

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.1.12., 4.1.14., 4.1.15., 4.1.16., 4.2.1., 4.2.2., 4.3.1., 4.4.1. - 4.4.9., 4.5.1.; R13-2120I 4.1.12., 4.1.14., 4.1.15., 4.1.16., 4.2.2., 4.3.1., 4.4.2. - 4.4.10., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.1.12., 4.1.14., 4.1.15., 4.1.16., 4.2.1., 4.2.2., 4.4.7. - 4.4.9.; R13-2120I 4.1.12., 4.1.14., 4.1.15., 4.1.16., 4.2.1., 4.2.2., 4.4.8. - 4.4.10.
3. PM emission limit – R30-07300003-2012 (MM02): 4.1.12., 4.1.14., 4.1.15., 4.1.16., 4.2.1., 4.2.2., 4.4.8., 4.4.9., 4.5.2; R13-2120I 4.1.12., 4.1.14., 4.1.15., 4.1.16., 4.2.1., 4.2.2., 4.4.9., 4.4.10., 4.5.2.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-DRUM	Drumming Station	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Single drum conveyor fill system and palletizer

Manufacturer:	**Model number:**	**Serial number:**
Mettler Toledo	9127	W35612
Construction date:	**Installation date:**	**Modification date(s):**
2000	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	1.406	6.158

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master for drumming the worst case scenario product 24 hours a day, 7 days a week.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-DRUM	Drumming Station	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Drum / Tote Filling Station

Manufacturer:	**Model number:**	**Serial number:**
Mettler Toledo	FIL-560	0806F021393
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	2006

Design Capacity (examples: furnaces – tons/hr, tanks - gallons):
4 drums or 1 tote

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.030	0.130

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master for worst-case product drummed in this unit, drumming 24 hours a day, 7 days a week.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
WH-4T1	Drumming Tank Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for WH-4T1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
WH-4T1	Drumming Tank	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vertical 316SS 13515 gallon tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	1255
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	1999

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
13,515 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.001	0.005

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for batch calculations. PPH and TPY calculation rate taken from highest emitting batch rate per pollutant (VOC, etc) possible given continuous product of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
W-T5	Effluent Equalization Hold Tank	None – vents via 026E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Vertical Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding	N/A	1261
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
27,535 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.009 (Max)	0.0034 (Max)

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

W-T5 is an effluent tank. The most volatile product waste was calculated using Emission Master v7.2.0.2, and calculated at it's maximum possible hourly and yearly production rate.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-2K1	Esterification Reactor Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 2-2K1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-2K1	Esterification Reactor Manway	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Manway to 2-2K1 no longer opened for production purposes. Manway used exclusively for maintenance.

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	NA	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Manway no longer releases pollutants.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1..; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-2ST1	Hold Tank	None – vents via 08CE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Out of Service 316SS Vertical 1042 gallon tank

Manufacturer:	**Model number:**	**Serial number:**
Person Pine Mfg Co.	NA	9347-F
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,042 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0	0

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Tank is currently out of service.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-2K2	Hold Tank Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 2-2K2

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-2T2	Hot Well	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
304SS Vertical 178 gallon seal tank

Manufacturer:	**Model number:**	**Serial number:**
Metal Equipment Co.	NA	W19817
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Rates from 3-2VJ1 as a worst case. Hot well is seal pot for vacuum jet condensate.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-4T3	Hot Well	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
304SS Vertical 178 gallon process tank

Manufacturer:	**Model number:**	**Serial number:**
Specialty Piping	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
2010	2010	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Rates from 3-4VJ1 as a worst case. Hot well is seal pot for vacuum jet condensate.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-T-3 Compartment A	IBOH Storage Tank	None – vents via 0A7E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316 Stainless horizontal compartmented tank

Manufacturer:	**Model number:**	**Serial number:**
Sistersville Tank Works	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1988	1988	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	1.478	0.365

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible isobutanol usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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 – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ Permit Shield

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 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-T-3 Compartment D	IPAL or PG Storage Tank	None – vents via 0D7E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316 Stainless horizontal compartmented tank

Manufacturer:	**Model number:**	**Serial number:**
Sistersville Tank Works	N/A	88-206
Construction date:	**Installation date:**	**Modification date(s):**
1988	1988	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	5.297	0.198

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible isopropanol usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-2T1	MA-80I Storage Tank	None – vents via 019E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine Mfg. Co.	NA	9347-E

Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
25,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	8.410	2.376

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible MA-80I production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-7T1	MAA Storage Tank	None – vents via 003E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316 Stainless Steel Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine Mfg. Co.	NA	9347-G
Construction date:	**Installation date:**	**Modification date(s):**
1976	1977	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
31,712 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	1.175	0.160
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	1.175	0.160
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible maleic anhydride usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.19.; 45CSR34, 40 C.F.R. 63 Subpart FFFF.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.5., 4.4.13., 4.5.3.; 45CSR34, 40 C.F.R. 63 Subpart FFFF.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-3BS1	MBS Silo	Baghouse/ Dust Collector 3-3DC1 – vents via 03BE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
304SS 100,000 lbs bulk dry powder silo

Manufacturer:	**Model number:**	**Serial number:**
Pittsburgh Tank Corp.	NA	X2A-04-1375
Construction date:	**Installation date:**	**Modification date(s):**
2004	2004	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
100,000 dry bulk

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0.041	0.181
Particulate Matter (PM_{10})	0.041	0.181
Total Particulate Matter (TSP)	0.041	0.181
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	---	---

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Maximum rate calculated from continuous unloading 24 hours a day, 365 days a year. Summary Basis for Solid Materials PM Emission Factors, dated July 21, 2004, used to calculate suspended material, and minimum efficiency factor (99.5%) adjusted.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Visible emissions limit – 45CSR§7-3.7.; R30-07300003-2012 (MM02): 4.1.13.; R13-2120I 4.1.13.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.1.9., 4.1.11., 4.1.16., 4.2.4., 4.3.1., 4.4.1. - 4.4.9., 4.5.1.; R13-2120I 4.1.9., 4.1.11., 4.1.16., 4.2.4., 4.3.1., 4.4.2. - 4.4.10., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.1.9., 4.1.11., 4.1.16., 4.2.1., 4.2.4., 4.4.1. - 4.4.11.; 45CSR§30-5.1.c; R13-2120I 4.1.9., 4.1.11., 4.1.16., 4.2.1., 4.2.4., 4.4.2. - 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-4BS2	MBS Silo	Baghouse/ Dust Collector 3-4DC2 – vents via 05AE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
304SS 100,000 lbs bulk dry powder silo

Manufacturer:	**Model number:**	**Serial number:**
Shick Tube Veyor	NA	751620
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
100,000 lb dry bulk

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0.041	0.181
Particulate Matter (PM_{10})	0.041	0.181
Total Particulate Matter (TSP)	0.041	0.181
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	---	---

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Maximum rate calculated from continuous unloading 24 hours a day, 365 days a year. Summary Basis for Solid Materials PM Emission Factors, dated July 21, 2004, used to calculate suspended material, and minimum efficiency factor (99.5%) adjusted.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Visible emissions limit – 45CSR§7-3.7.; R30-07300003-2012 (MM02): 4.1.13.; R13-2120I 4.1.13.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.1.9., 4.1.11., 4.1.16., 4.2.4., 4.3.1., 4.4.1. - 4.4.9., 4.5.1.; R13-2120I 4.1.9., 4.1.11., 4.1.16., 4.2.4., 4.3.1., 4.4.2. - 4.4.10., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.1.9., 4.1.11., 4.1.16., 4.2.1., 4.2.4., 4.4.1. - 4.4.11.; 45CSR§30-5.1.c; R13-2120I 4.1.9., 4.1.11., 4.1.16., 4.2.1., 4.2.4., 4.4.2. - 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-5T1	MIBC Storage Tank	None – vents via 011E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Modern Welding Co.	NA	11419
Construction date:	**Installation date:**	**Modification date(s):**
1994	1994	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
25,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	1.814	0.459

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible MIBC usage in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-3T1	OT-35 Unwashed Storage Tank	None – vents via 015E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Metal Equipment Co.	NA	CTW-14227
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
27,555 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.234	0.114

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-35 production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-4T2	OT-35W Storage Tank	None – vents via 014E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
SA-283 grC Steel Horizontal Tank

Manufacturer:	**Model number:**	**Serial number:**
Buffalo Tank Corp.	NA	CTW-14225
Construction date:	**Installation date:**	**Modification date(s):**
1975	1975	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
10,760 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.234	0.114

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-35 production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-8T1	OT-35W Storage Tank	None – vents via 005E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	1260
Construction date:	**Installation date:**	**Modification date(s):**
1997	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
27,535 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.234	0.114

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-35 production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-2T2	OT-70PG Storage Tank	None – vents via 020E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine Mfg. Co.	NA	9347-H

Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
25,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.001	0.001

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-70PG production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-1T1	OT-75 Storage Tank	None – vents via 021E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine Mfg. Co.	NA	9347-D
Construction date:	**Installation date:**	**Modification date(s):**
1977	1977	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
26,662 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	3.755	1.316

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-75 production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-7T2	OT-75 Storage Tank	None – vents via 008E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co.	NA	1259
Construction date:	**Installation date:**	**Modification date(s):**
1998	1998	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
27,535 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	3.755	1.316

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-75 production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-T-3 Compartment C	PG or DEG Storage Tank	None – vents via 0C7E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316 Stainless horizontal compartmented tank

Manufacturer:	**Model number:**	**Serial number:**
Sistersville Tank Works	N/A	88-206
Construction date:	**Installation date:**	**Modification date(s):**
1988	1988	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
7,750 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.017	0.002

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible PG usage in the plant and determining how many tank turnovers in a year that would entail, and multiplying by maximum hourly rate.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-1T2	OT-GPG Storage Tank	None – vents via 022E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine Mfg. Co.	NA	9347-J
Construction date:	**Installation date:**	**Modification date(s):**
1977	1977	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
25,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	4.578	1.485

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used to calculate maximum hourly rate by using reactor unloading pump at max rate to fill max volume. Maximum yearly rate calculated by determining maximum possible OT-GPG production in the plant and determining how many tank turnovers in a year that would entail.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-3T1	Precoat Tank	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vertical 316SS Open Top Vessel

Manufacturer:	**Model number:**	**Serial number:**
Piersol Pine MFG Co	NA	9347-C
Construction date:	**Installation date:**	**Modification date(s):**
1975	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
750 gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0.071	0.313
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	0.002	0.010
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Assumed Model from Emission Master all venting from 04CE came from this vessel on a worst case scenario basis.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-2T3	Precoat Tank Manway	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vertical 304SS Open Top Vessel

Manufacturer:	**Model number:**	**Serial number:**
Valley Steel Co.	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1990	1990	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
750 gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0.216	0.038
Particulate Matter (PM_{10})	0.216	0.038
Total Particulate Matter (TSP)	0.216	0.038
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	---	---

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	---	---

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Assumed Model from Emission Master all venting from 04CE came from this vessel on a worst case scenario basis.

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 – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Opacity limit – 45CSR§7-3.1.; R30-07300003-2012 (MM02): 4.1.2.; R13-2120I 4.1.2.
3. PM emission limit – 45CSR§7-4.1.; R30-07300003-2012 (MM02): 4.1.3.; R13-2120I 4.1.3.
   --WVDAQ Regulation 7 (Section 4.1)
   Vent ID# 04CE
   a. Source Operation Generating PM -Addition of Hyflo to Precoat Tank (ID# 1-3T1).
   b. Source Operation Process Type = Type 'a' (physical change)
   c. Source Operation Process Weight Rate = 5,000 lb/hr
   d. Maximum Allowable Total Stack Emission Rate (per Reg. 7 Table 45-7A) = 5 lb/hr
   e. Calculated Maximum Stack Emission Rate = 0.216 lb/hr

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.2.1., 4.4.7.; R13-2120I 4.2.1., 4.4.8.
3. PM emission limit – R30-07300003-2012 (MM02): 4.3.2; R13-2120I 4.3.2.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-4K1, 3-4CD1	Prep Kettle and Condenser	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
12,000 gallon 316SS Vertical Tank w/ Condenser

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co & Manning & Lewis Co	NA	1256 & 17165 & 17157
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
16,460 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.009	0.001
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Methanol	0.001	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for batch calculations. PPH and TPY calculation rate taken from highest emitting batch rate per pollutant (SO2, VOC, etc) possible given continuous product of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16., 4.1.19.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; 45CSR34, 40 C.F.R. 63 Subpart FFFF.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.2.5., 4.4.8., 4.4.9., 4.4.14., 4.5.3.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.; 45CSR34, 40 C.F.R. 63 Subpart FFFF.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-4K1	Prep Kettle Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 2-4K1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	< 0.001	0.001
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-2SF1	Pressure Filter Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 1-2SF1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	< 0.001	0.001
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-3SF1	Pressure Filter Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 1-3SF1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	< 0.001	0.001
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-4SF1	Pressure Filter Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 1-4SF1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
1-4SF1	Pressure Filter Manway	None – vents via 08BE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Manway for pressure leaf filter

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0	0

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Manway not opened during production, no release of pollutants.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
RS-1	Railcar Loading Station	None – vents via RS-1E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Railcar Loading / Unloading Station (8-F)

Manufacturer:	**Model number:**	**Serial number:**
NA		

Construction date:	**Installation date:**	**Modification date(s):**
1977	NA	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1 Railcar

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	8.41	1.188

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master models for high VOC railcar transfers compared on a maximum hourly and maximum yearly VOC rate. Highest rates selected and reported (in this case, both hourly and yearly rates are highest for MA-80I).

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
RS-2	Railcar Loading Station	None – vents via RS-2E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Railcar Loading / Unloading Station (by TS-4)

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1998	NA	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1 Railcar

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	8.41	1.188

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master models for high VOC railcar transfers compared on a maximum hourly and maximum yearly VOC rate. Highest rates selected and reported (in this case, both hourly and yearly rates are highest for MA-80I).

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
RS-3	Railcar Loading Station	None – vents via RS-3E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Railcar Loading / Unloading Station (by TS-5)

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1998	NA	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1 Railcar

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	8.41	1.188

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master models for high VOC railcar transfers compared on a maximum hourly and maximum yearly VOC rate. Highest rates selected and reported (in this case, both hourly and yearly rates are highest for MA-80I).

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-2K1, 3-2CD1	Esterification Reactor and Condenser	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
12,000 gallon vertical 316SS reactor w/ condenser

Manufacturer:	**Model number:**	**Serial number:**
Stacey Manufacturing Co. & Welden Service Co.	NA	6593 & 1575-A
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
12,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.004	0.001
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for batch calculations. PPH and TPY calculation rate taken from highest emitting batch rate per pollutant (VOC, etc) possible given continuous product of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16., 4.1.19.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; 45CSR34, 40 C.F.R. 63 Subpart FFFF.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.2.5., 4.4.8., 4.4.9., 4.4.14., 4.5.3.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.; 45CSR34, 40 C.F.R. 63 Subpart FFFF.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-2K2, 3-2CD2, 3-2CD3	Reactor and Condensers	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vertical 316SS 8,100 gallon tank

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co. & Manning and Lewis	NA	1254 & 17164 & 17158
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
8,100 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.004	0.001
Volatile Organic Compounds (VOC)	0.009	0.044

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for batch calculations. PPH and TPY calculation rate taken from highest emitting batch rate per pollutant (SO2, VOC, etc) possible given continuous product of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3K1, 3-3CD1	Sulfonation Reactor and Condenser	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
12,000 gallon 316SS Vertical tank w/ condenser

Manufacturer:	**Model number:**	**Serial number:**
Stacey Manufacturing Co. & Weldon Inc.	NA	6594&S01575-B
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
12,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.009	0.001
Volatile Organic Compounds (VOC)	0.010	0.044
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	0.001	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for batch calculations. PPH and TPY calculation rate taken from highest emitting batch rate per pollutant (SO2, VOC, etc) possible given continuous product of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3K2, 3-2CD2, 3-2CD3	Reactor and Condensers	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Vertical 8,100 gallon vessel

Manufacturer:	**Model number:**	**Serial number:**
Pottstown Metal Welding Co. & Manning and Lewis Co.	NA	1250 & 17159
Construction date: 1997	**Installation date:** 1997	**Modification date(s):**

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
8,100 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.004	0.001
Volatile Organic Compounds (VOC)	0.009	0.044

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for batch calculations. PPH and TPY calculation rate taken from highest emitting batch rate per pollutant (SO2, VOC, etc) possible given continuous product of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.1o.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3K2	Reactor Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 2-3K2

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-4T3	Scrubber Liquor Recirculation Tank	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
930 gallon SA516-70 Horizontal vessel supporting scrubber

Manufacturer:	**Model number:**	**Serial number:**
Dynamic Welding & Fabrication Co	NA	97742
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	1997

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.691	0.190
Volatile Organic Compounds (VOC)	---	---
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	0.001	0.006
Maleic Anhydride	0.008	0.035
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master used for worst case production rates for each pollutant under full production loading (i.e. worst case used for methanol is not the worst case used for total VOCs, etc). 3-4T3 generates no VOCs or other pollutants on its own, although everything passing to 04DE goes through it.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-4BS1	Sodium Sulfite Silo	Baghouse/ Dust Collector 3-4DC1 – vents via 04AE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
304SS 100,000 lbs bulk dry powder silo

Manufacturer:	**Model number:**	**Serial number:**
Pittsburgh Tank Corp.	NA	X2B-04-1375
Construction date:	**Installation date:**	**Modification date(s):**
2004	2004	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
100,000 lbs dry bulk

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0.041	0.181
Particulate Matter (PM_{10})	0.041	0.181
Total Particulate Matter (TSP)	0.041	0.181
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	---	---

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Maximum rate calculated from continuous unloading 24 hours a day, 365 days a year. Summary Basis for Solid Materials PM Emission Factors, dated July 21, 2004, used to calculate suspended material, and minimum efficiency factor (99.5%) adjusted.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Visible emissions limit – 45CSR§7-3.7.; R30-07300003-2012 (MM02): 4.1.13.; R13-2120I 4.1.13.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.1.9., 4.1.11., 4.1.16., 4.2.4., 4.3.1., 4.4.1. - 4.4.9., 4.5.1.; R13-2120I 4.1.9., 4.1.11., 4.1.16., 4.2.4., 4.3.1., 4.4.2. - 4.4.10., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.1.9., 4.1.11., 4.1.16., 4.2.1., 4.2.4., 4.4.1. - 4.4.11.; 45CSR§30-5.1.c; R13-2120I 4.1.9., 4.1.11., 4.1.16., 4.2.1., 4.2.4., 4.4.2. - 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3HOP1	Solids Charging Hopper	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Solids charging hopper for 2-3K2.

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	3.121	0.556
Particulate Matter (PM_{10})	3.121	0.556
Total Particulate Matter (TSP)	3.121	0.556
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming full reactor utilization of worst case product.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Opacity limit – 45CSR§7-3.1.; R30-07300003-2012 (MM02): 4.1.2.; R13-2120I 4.1.2.
3. PM emission limit – 45CSR§7-4.1.; R30-07300003-2012 (MM02): 4.1.3.; R13-2120I 4.1.3.
   --WVDAQ Regulation 7 (Section 4.1)
   Vent ID# 04CE
   a. Source Operation Generating PM - Charging of solids to reactor (ID# 2-3K2).
   b. Source Operation Process Type = Type 'a' (physical change)
   c. Source Operation Process Weight Rate = 5,000 lb/hr
   d. Maximum Allowable Total Stack Emission Rate (per Reg. 7 Table 45-7A) = 5 lb/hr
   e. Calculated Maximum Stack Emission Rate = 3.121 lb/hr

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.2.1., 4.4.7.; R13-2120I 4.2.1., 4.4.8.
3. PM emission limit – R30-07300003-2012 (MM02): 4.3.2; R13-2120I 4.3.2.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
S-5T2	Storage Tank	None – vents via 012E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Carbon Steel Horizontal Storage Tank

Manufacturer:	**Model number:**	**Serial number:**
Modern Welding Co.	NA	11418
Construction date:	**Installation date:**	**Modification date(s):**
1994	1994	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
10,000 gallons

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

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	0	0

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Tank is currently out of service.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3K1	Sulfonation Reactor Sampling Port	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Below level sampling port for 2-3K1

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.002	0.009
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol	< 0.001	0.001
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH rate from Emission Master 7.2.0.2. of worst case product. Yearly results calculated by assuming a sample every hour for an entire year.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
WH-4BB1, WH-4BB2	Bulk Bag Unloaders	Dust Collectors WH-4DC1, WH-4DC2 – vents via 05BE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Unloading raw materials from supersacks to air conveying system.

Manufacturer:	**Model number:**	**Serial number:**
Spiroflow	DC 18-1-500-83-6	

Construction date:	**Installation date:**	**Modification date(s):**
N/A	2015	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
30,000 lb/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	Varies hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	<0.0001	
Particulate Matter (PM_{10})	<0.0001	
Total Particulate Matter (TSP)	<0.0001	
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	---	---

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Hourly PPH emission rate based upon AP-42 emission factors assuming worst case equipment utilization (up to 10 supersacks unloaded per hour).

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 – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Opacity limit – 45CSR§7-3.1.; R30-07300003-2012 (MM02): 4.1.2.; R13-2120I 4.1.2.
3. PM emission limit – 45CSR§7-4.1.; R30-07300003-2012 (MM02): 4.1.3.; R13-2120I 4.1.3.
   --WVDAQ Regulation 7 (Section 4.1)
   Vent ID# 04CE
   a. Source Operation Generating PM - Charging of solids to reactor (ID# 2-3K2).
   b. Source Operation Process Type = Type 'a' (physical change)
   c. Source Operation Process Weight Rate = 5,000 lb/hr
   d. Maximum Allowable Total Stack Emission Rate (per Reg. 7 Table 45-7A) = 5 lb/hr
   e. Calculated Maximum Stack Emission Rate = 3.121 lb/hr

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Visible emissions limit – R30-07300003-2012 (MM02): 4.2.1., 4.4.7.; R13-2120I 4.2.1., 4.4.8.
3. PM emission limit – R30-07300003-2012 (MM02): 4.3.2; R13-2120I 4.3.2.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
2-3K1	Sulfonation Reactor Manway	None – vents via 04CE Industrial Hygiene Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Manway to 2-3K1 no longer opened for production purposes. Manway used exclusively for maintenance.

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
NA	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	NA	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Manway no longer releases pollutants.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
TS-1	Truck Loading Station	None – vents via TS-1E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Truck unloading station (not used for loading- mostly for packaging materials)

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1977	NA	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1 truck

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	NA	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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	NA

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Truck spot is not used for loading materials into a truck.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
TS-2	Truck Loading Station	None – vents via TS-2E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Tanker truck loading/unloading station

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
1977	N/A	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Two tank trucks (approx 5500 gallon trucks) on spot at a time

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	22.9	2.865
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Methanol (From AY-65)	2.1043	0.263
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master models for high VOC tank truck transfers compared on a maximum hourly and maximum yearly VOC rate. Highest rates selected and reported (in this case, both the PPH and the yearly rates comes from AY-65.) Methanol rates come from AY-65 maximum possible rates as well.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
TS-3	Truck Loading Station	None – vents via TS-3E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Truck unloading station (not used for loading, mostly for packaging materials)

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date:	**Installation date:**	**Modification date(s):**
1998	NA	NA

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

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	NA	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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	NA

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Truck spot is not used for loading materials into a truck.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
TS-4	Truck Loading Station	None – vents via TS-4E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Tanker truck loading/unloading station

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
1998	N/A	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
One tank truck (approx 5,500 gallon trucks) on spot at a time

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	9.147	1.188

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master models for high VOC tank truck transfers compared on a maximum hourly and maximum yearly VOC rate. Highest rates selected and reported (in this case, the highest hourly comes from transfer of recovered 23A to a truck, and the highest yearly rate is for MA-80I).

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
TS-5	Truck Loading Station	None – vents via TS-5E

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Tanker truck loading/unloading station

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
1998	N/A	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
One tank truck (approx 5500 gallon trucks) on spot at a time

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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)	9.147	1.188

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission Master models for high VOC tank truck transfers compared on a maximum hourly and maximum yearly VOC rate. Highest rates selected and reported (in this case, the highest hourly comes from transfer of recovered 23A to a truck, and the highest yearly rate is for MA-80I).

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.4.2. - 4.4.7., 4.5.1.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-2VP1	Vacuum Pump System	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cobra Dry Screw Vacuum Pump w/ Tuthill Booster

Manufacturer:	**Model number:**	**Serial number:**
Busch	C400	RC2705
Construction date:	**Installation date:**	**Modification date(s):**
1997	1997	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5 mmHg

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	---	---
Volatile Organic Compounds (VOC)	0.009	0.044

Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Emission rates are equivalent to 2-2K2, as anything emitting from 3-2VP1 comes from 2-2K2.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-2VJ1, 3-2VJ2, 3-2VJ3	Vacuum Jets	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
316SS Steam Ejectors in Series

Manufacturer:	**Model number:**	**Serial number:**
Jet Vac	NA	JV-5637X, Y, Z
Construction date:	**Installation date:**	**Modification date(s):**
1976	1976	

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5 mmHg

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Rates are equivalent to 2-2K1 rates, as anything that leaves through the vacuum jets leaves via 2-2K1.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ 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:	**Emission unit name:**	**List any control devices associated with this emission unit.**
3-4VJ1, 3-4VJ2, 3-4VJ3	Vacuum Jets	Seal Pot 3-4T2, Caustic Scrubber 3-4SC1, Water Scrubber 3-4SC2; vents via 04DE.

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
3-Stage Vacuum Ejector System with Inter-stage Coolers

Manufacturer:	**Model number:**	**Serial number:**
Artisan Industries	3-Stage Vacuum System – X Stage 10"x8" Multi-Nozzle Ejector Y Stage – Model S-40 Ejector Z Stage – Model S-30 Ejector 2 Inter-condensers and 1 after-condenser	NA

Construction date:	**Installation date:**	**Modification date(s):**
2010	2010	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5 mmHg

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Varies	Varies	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ 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 ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0.009	0.001
Volatile Organic Compounds (VOC)	0.089	0.392
Hazardous Air Pollutants	Potential Emissions (After Control)	
	PPH	TPY
Maleic Anhydride	0.005	0.021
Methanol	0.001	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions (After Control)	
	PPH	TPY
None	---	---

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.).

Rates are equivalent to 2-4K1 rates, as anything that leaves through the vacuum jets leaves via 2-4K1.

Applicable Requirements

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

1. Emission limits – R30-07300003-2012 (MM02): 4.1.1.; R13-2120I 4.1.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.1.4. - 4.1.7., 4.1.12., 4.1.16.; R13-2120I 4.1.4. - 4.1.7., 4.1.12., 4.1.16.

____ 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. Emission limits – R30-07300003-2012 (MM02): 4.3.1., 4.4.1. - 4.4.6., 4.5.1.; R13-2120I 4.3.1., 4.4.2. - 4.4.7., 4.5.1.
2. Operating limits – R30-07300003-2012 (MM02): 4.2.2., 4.2.3., 4.4.8., 4.4.9.; R13-2120I 4.2.2., 4.2.3., 4.4.9., 4.4.10.

Are you in compliance with all applicable requirements for this emission unit? __X__ Yes ___No

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

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:	**List all emission units associated with this control device.**	
3-3DC1	3-3BS1	
Manufacturer:	**Model number:**	**Installation date:**
Shick Tube-Veyor Corp.	6-IQC-1250	11/2004

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ 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
MBS / Sodium Sulfite PM	100%	99.5%

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

6 Filter Inserts; 98.76 ft^2; 99.5% efficient for PM

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-3DC1 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.

Yearly PM

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 3-4DC1	**List all emission units associated with this control device.** 3-4BS1	
Manufacturer: Shick Tube-Veyor Corp.	**Model number:** 6-IQC-1250	**Installation date:** 11/2004

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ 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
MBS / Sodium Sulfite PM	100%	99.5%

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

6 Filter Inserts; 98.76 ft^2; 99.5% efficient for PM

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-4DC1 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.

Yearly PM

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 3-4DC2	**List all emission units associated with this control device.** 3-4BS2	
Manufacturer: Shick Tube-Veyor	**Model number:** 6-IQC-1250	**Installation date:** 9/2005

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ 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
MBS / Sodium Sulfite PM	100%	99.5%

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

6 Filter Inserts; 98.76 ft^2; 99.5% efficient for PM

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-4DC2 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.

Yearly PM

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WH-4DC1	**List all emission units associated with this control device.** WH-4BB1	
Manufacturer: Spiroflow Systems, Inc.	**Model number:** DC18-1-500-83-6	**Installation date:** 2015

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ 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
PM	100%	99%

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

3 cartridges per unit; 83 ft^2 cloth area per unit; 99% efficient for PM.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device WH-4DC1 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.

Yearly preventative maintenance (PM).

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WH-4DC2	**List all emission units associated with this control device.** WH-4BB2	
Manufacturer: Spiroflow Systems, Inc.	**Model number:** DC18-1-500-83-6	**Installation date:** 2015

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ 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
PM	100%	99%

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

3 cartridges per unit; 83 ft^2 cloth area per unit; 99% efficient for PM.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device WH-4DC2 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.

Yearly preventative maintenance (PM).

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 3-4SC1	**List all emission units associated with this control device.** 1-2T1, 1-2T2, 1-2T4, 1-4T1, 2-2K1, 2-2K2, 2-3K1, 2-3K2, 2-4K1, 2-4T3, 3-2CD1, 3-2CD2, 3-2CD3, 3-2T1, 3-2VJ1, 3-2VJ2, 3-2VJ3, 3-2VP1, 3-3CD1, 3-3CD2, 3-4CD1, 3-4CD2, 3-4T1, 3-4T3, 3-4VP1, 3-4VP2, WH-4T1	
Manufacturer: Sistersville Tank Works	**Model number:** MS# 04-238	**Installation date:** 06/23/04

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber _X_ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ 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
SO2	100%	97.5%

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

Caustic Solution Flow Rate >= 6.3 GPM
pH of Caustic Solution >= 13.5 pH
% Caustic of Caustic Solution >= 3.0%

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-4SC1 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.

Flow rate monitored by flow meter FIT-03812.
pH sampled before each sulfonation batch and measured.
% caustic sampled before each sulfonation batch and measured.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 3-3SC1	**List all emission units associated with this control device.** 2-3DD1	
Manufacturer: Ceilcote Air Pollution Control	**Model number:** VTS-36-9 Tray Scrubber	**Installation date:** 1998

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) _X_ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ 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
VOCs	100%	95%

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

Water Flow Rate >= 4.2 GPM

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-3SC1 is not a subject Pollutant-Specific Emissions Unit, as defined at 40 C.F.R. §64.1, because this control device is already subject to a Title V permit that specifies a continuous compliance determination method as defined in §64.1, and thus is exempt from CAM requirements per 40 C.F.R. §64.2(b)(1)(vi). Refer to Title V permit R30-07300003-2007; MM02 (Part 2 of 4), sections 4.1.12, 4.1.15, 4.2.2, and 4.4.8, for the existing continuous compliance determination methods specified in the Cytec-WI Surfactants Manufacturing Unit Title V permit.

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

Flow rate monitored and controlled by flow meter FIT-02141.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 3-4T2	**List all emission units associated with this control device.** 1-2T1, 1-2T2, 1-2T4, 1-4T1, 2-2K1, 2-2K2, 2-3K1, 2-3K2, 2-4K1, 2-4T3, 3-2CD1, 3-2CD2, 3-2CD3, 3-2T1, 3-2VJ1, 3-2VJ2, 3-2VJ3, 3-2VP1, 3-3CD1, 3-3CD2, 3-4CD1, 3-4CD2, 3-4T1, 3-4T3, 3-4VP1, 3-4VP2, WH-4T1	
Manufacturer: Pottstown Metal Welding Co.	**Model number:** MS# 1301	**Installation date:** 05/1998

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare _X_ Other (describe) Seal Pot

___ Wet Plate Electrostatic Precipitator ___ 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
VOCs	100%	50%

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

Water Flow Rate >= 3.8 GPM

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-4T2 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.

Flow rate monitored by flow meter FIT-02701.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 3-4SC2	**List all emission units associated with this control device.** 1-2T1, 1-2T2, 1-2T4, 1-4T1, 2-2K1, 2-2K2, 2-3K1, 2-3K2, 2-4K1, 2-4T3, 3-2CD1, 3-2CD2, 3-2CD3, 3-2T1, 3-2VJ1, 3-2VJ2, 3-2VJ3, 3-2VP1, 3-3CD1, 3-3CD2, 3-4CD1, 3-4CD2, 3-4T1, 3-4T3, 3-4VP1, 3-4VP2, WH-4T1	
Manufacturer: DR Technology	**Model number:** Ref# 97742	**Installation date:** 05/1998

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber _X_ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ 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
VOCs	100%	85%

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

Water Flow Rate >= 3.8 GPM

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Control Device 3-4SC2 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.

Flow rate monitored and controlled by flow meter FIT-03814.

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 Surfactants manufacturing unit does not own or operate a subject pollutant-specific emissions unit as defined at 40 C.F.R. §64.1, because all Surfactants manufacturing unit control devices either 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), or are already subject to a Title V permit that specifies a continuous compliance determination method as defined in §64.1, and thus are exempt from CAM requirements per 40 C.F.R. §64.2(b)(1)(vi).

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					
EXAMPLE 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 MONITORING APPROACH used to measure the indicators:			
[b] Establish the appropriate INDICATOR RANGE or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE CRITERIA Provide the SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA, such as detector location, installation specifications, and minimum acceptable accuracy:			
[c] For new or modified monitoring equipment, provide VERIFICATION PROCEDURES, including manufacturer's recommendations, TO CONFIRM THE OPERATIONAL STATUS of the monitoring:			
Provide QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
[d] Provide the MONITORING FREQUENCY:			
Provide the DATA COLLECTION PROCEDURES that will be used:			
Provide the DATA AVERAGING PERIOD 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:	6b) Regulated Air Pollutant:
Not Applicable	

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:

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 Surfactants manufacturing unit does not own or operate a subject pollutant-specific emissions unit as defined at 40 C.F.R. §64.1, because all Surfactants manufacturing unit control devices either 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), or are already subject to a Title V permit that specifies a continuous compliance determination method as defined in §64.1, and thus are exempt from CAM requirements per 40 C.F.R. §64.2(b)(1)(vi).

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					
EXAMPLE 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 MONITORING APPROACH used to measure the indicators:			
[b] Establish the appropriate INDICATOR RANGE or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE CRITERIA Provide the SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA, such as detector location, installation specifications, and minimum acceptable accuracy:			
[c] For new or modified monitoring equipment, provide VERIFICATION PROCEDURES, including manufacturer's recommendations, TO CONFIRM THE OPERATIONAL STATUS of the monitoring:			
Provide QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
[d] Provide the MONITORING FREQUENCY:			
Provide the DATA COLLECTION PROCEDURES that will be used:			
Provide the DATA AVERAGING PERIOD 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:	6b) Regulated Air Pollutant:
Not Applicable	

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: