Carney, Jonathan W <jonathan.w.carney@wv.gov>

RE: [EXT] R30-10700182-2022 (Part 11 of 14)

1 message

Mentink, John J <JOHN.J.MENTINK@chemours.com> Tue, Dec 21, 2021 at 12:23 PM
To: "Carney, Jonathan W" <jonathan.w.carney@wv.gov>

This –

4.4.5.In the event that an applicable MACT [Maximum Achievable Control Technology] standard is promulgated in the future that requires a Startup, Shutdown and Malfunction (SSM) Plan or the permittee voluntarily employs a SSM Plan, the SSM Plan shall supersede and replace the provisions of Section 4.4.4of this permit. The permittee shall notify the Director in writing of the adoption of such SSM Plans. [45CSR§30-5.1.c.]

Since this is an R&D facility, and R&D facilities are not included in the MACT standards – and any new process that might be commercial would require an R13 permit as well as a Title V permit modification –

I see no reason to include 4.4.5 as copied above as part of the permit. If we need to apply a MACT standard there almost a 100% surety that an SSM plan will not be allowed.

From: Carney, Jonathan W <jonathan.w.carney@wv.gov>
Sent: December 21, 2021 10:25
To: Mentink, John J <JOHN.J.MENTINK@chemours.com>
Subject: [EXT] R30-10700182-2022 (Part 11 of 14)

External email. Confirm links and attachments before opening.

John,

Why was 4.4.5 included in the subject permit? If you have no reason, do you have any objection to it being removed?

Jonathan Carney

Jonathan Carney, P.E.
Environmental Protection
NSR Air Permitting

(304) 926-0499 ext. 41247
Jonathan.W.Carney@wv.gov
601 57th St SE
Charleston, WV 25304

Carney, Jonathan W <jonathan.w.carney@wv.gov>

Completeness Determination, The Chemours Company FC, LLC-Washington Works, Application No.: R30-10700182-2021(11 of 14)

1 message

Carney, Jonathan W <Jonathan.W.Carney@wv.gov> Fri, Jun 4, 2021 at 9:55 AM
To: "nocole.t.newell@chemours.com" <nocole.t.newell@chemours.com>, "Mentink, John J" <JOHN.J.MENTINK@chemours.com>
Cc: "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>

Ms. Newell,

Your Title V renewal application for a permit to operate the above referenced facility was received by this Division on April 7, 2021. After review of said application, it has been determined that the application is administratively complete as submitted. Therefore, the above referenced facility qualifies for an Application Shield.

The applicant has the duty to supplement or correct the application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

The submittal of a complete application shall not affect the requirement that any source have all **preconstruction permits** required under the rules of the Division.

If during the processing of this application it is determined that additional information is necessary to evaluate or take final action on this application, a request for such information will be made in writing with a reasonable deadline for a response. Until which time as your renewal permit is issued or denied, please continue to operate this facility in accordance with 45CSR30, section 6.3.c. which states: *If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.* This protection shall cease to apply if, subsequent to the completeness determination made pursuant to paragraph 6.1.d. of 45CSR30 and as required by paragraph 4.1.b., the applicant fails to submit by the deadline specified in writing any additional information identified as being needed to process the application.

Please remember, **failure of the applicant to timely submit information required or requested to process the application may cause the Application Shield to be revoked.** Should you have any questions regarding this determination, please call me at (304)926-0499 ext. 41247.

Sincerely,

Jonathan Carney

Jonathan Carney, P.E.
Environmental Protection
NSR Air Permitting

(304) 926-0499 ext. 41247
Jonathan.W.Carney@wv.gov
601 57th St SE
Charleston, WV 25304

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

304-863-4000
chemours.com

April 07, 2021

Submitted to DEPAirQualityPermitting@wv.gov

Ms. Laura M. Crowder, Director
Division of Air Quality
WV Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304-2345

COVER DOCUMENT FOR TITLE V PERMIT RENEWAL
R30-107-00182 Title V Permit – Segment 11 of 14 Renewal Application

Dear Ms. Crowder:

Attached you will find the application documents and required index for the application for the renewal of the Title V Operating permit for the Research and Development [Segment 11 of 14] facilities located at the Chemours Washington Works Facility.

The attached renewal application has been completed using references to the existing documentation (Permits) and interpretive rules for terms and compliance methods rather than the relisting of each term and compliance method under each emission unit. Chemours will supply searchable PDF copies of current permits and applicable interpretive rules if needed to assist the permit writer in the assembly of the final permit document.

After careful review Chemours has concluded that there will not be a confidential version of the renewal application. Operations in R&D and the associated laboratories do not involve production processes in the same manner as an established process used for manufacturing a specific product. The generalized requirements found in 45 CSR 13A and 45 CSR 13B leave sufficient room for protection of process knowledge and lines of investigation on an individual activity basis.

If you have questions, or need clarification, the contact person for this renewal application is John J. Mentink who may be reach at (304) 863-4033 by telephone or text and at john.j.mentink@chemours.com by email.

Very truly yours;

John J. Mentink
Environmental Sr. Principal Consultant
Chemours Washington Works

Enclosures

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):**
The Chemours Company FC, LLC.

2. Facility Name or Location:
Chemours Washington Works Washington, WV

3. DAQ Plant ID No.:
1 0 7 -- 0 0 1 8 2

4. Federal Employer ID No. (FEIN):
46-5626518

5. **Permit Application Type:**

- ☐ Initial Permit — When did operations commence? 1947
- ☑ Permit Renewal — What is the expiration date of the existing permit? 10/12/2021
- ☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☐ Corporation ☐ Governmental Agency ☑ LLC
☐ Partnership ☐ Limited Partnership

8. Number of onsite employees: 700

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.

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: 8480 DuPont Road - Building 1		
City: Washington	**State:** WV	**Zip:** 26181 -
Telephone Number: (30) 863 - 4300	**Fax Number:** (30) 863 - 4862	

12. Facility Location		
Street: 8450 DuPont road	**City:** Washington	**County:** Wood
UTM Easting: 442.368 km	**UTM Northing:** 4346.679 km	**Zone:** ☑ 17 or ☐ 18
Directions: From I-77 take the route 50 bypass around Parkersburg towards Ohio. At the last exit prior to the Bridge over the Ohio river exit from the Route 50 bypass to DuPont road. At the light turn left on DuPont road. Approximately 1 mile from the turn you will see the Site on your right and you will turn right to approach the main gate of the facility.		
Portable Source? ☐ Yes ☑ No		
Is facility located within a nonattainment area? ☐ Yes ☑ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☑ Yes ☐ No		**If yes, name the affected state(s).** Ohio
Is facility located within 100 km of a Class I Area[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: Nicole T. Newell		**Title:** Plant Manager
Street or P.O. Box: 8480 DuPont Road - Building 1		
City: Washington	**State:** WV	**Zip:** 26181 - 1217
Telephone Number: (304) 863 - 4305	**Fax Number:** (304) 362 - 9703	
E-mail address: nicole.t.newell@chemours.com		
Environmental Contact: John J. Mentink		**Title:** Sr. Env. Consultant
Street or P.O. Box: 8480 DuPont Road - Building 1		
City: Washington	**State:** WV	**Zip:** 26181 - 1217
Telephone Number: (304) 863 - 4033	**Fax Number:** ( ) -	
E-mail address: john.j.mentink@chemours.com		
Application Preparer: John J. Mentink		**Title:** Sr. Env.Consultant
Company: The Chemours Company FC LLC.		
Street or P.O. Box: 8480 DuPont Road		
City: Washington	**State:** WV	**Zip:** 26181 - 1217
Telephone Number: (304) 863 - 4033	**Fax Number:** ( ) -	
E-mail address: john.j.mentink@chemours.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
R&D Pilot Plant	Thermoplastic resins	325211	2821
Laboratory support plant	Thermoplastic resins	325211	2821

Provide a general description of operations.

The facility engages in support activities to manufacturing operations by engaging in analytical activities (as defined as Laboratory activities under 45 CSR 13B) in support of product manufacture and release for sales. The facilities also engage in research and development activities (as defined by 45 CSR 13A).

There is a small R&D Pilot plant facility with reactors used for polymerization research in support of manufacturing and in the development of new products and modified products.

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

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

    For instructions, refer to “Plot Plan - Guidelines.”

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

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
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)	☐ **C**ompliance **A**ssurance **M**onitoring (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.

Note: The primary purpose of this facility is to conduct Research and Development. The emission sources used only for R&D are subject to 45CSR13B and are exempted from permitting.

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 storage tanks in the Research facility subject to this requirement.

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 18, 1978, and Prior to July 23, 1984." There are no storage tanks in the Research facility subject to this requirement.

c. 40 C.F.R. 60, Subpart Kb - "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984." There are no storage tanks in the Research facility subject to this requirement.

☑ Permit Shield

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

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

d. 40 C.F.R. 60, Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." The Research facility 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 Research facility does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.

f. 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 Research facility does not produce any of the chemicals listed in 40 C.F.R. §60.707 as a product, co-product, by-product, or intermediate.

g. 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 Research facility.

h. 40 C.F.R. 63, Subpart H - "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." 40 C.F.R. 63 Subparts F, G, and H do not apply to the Research manufacturing process units, as they do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).

i. 40 C.F.R. 63, Subpart JJJ - "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins. The Research facility does not produce the materials listed in 40 C.F.R. §63.1310.

j. 40 C.F.R. 63, Subpart WWWW "National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Productions." The Research facility 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.

k. 40 C.F.R. 63, Subpart PPPP – "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products." The Research facility does not produce an intermediate or final product that meets the definition of "surface coating" plastic part.

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

m. 40 C.F.R. 63, Subpart HHHHH – "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing." The Research facility does not produce, blend, or manufacture coatings as part of the manufacturing process.

n. 40 C.F.R. 82, Subpart B - "Protection of Stratospheric Ozone." Requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing equipment need to be licensed. The Research facility does not conduct motor vehicle maintenance involving CFCs on site.

o. 40 C.F.R. 82, Subpart C – "Protection of Stratospheric Ozone." Bans non-essential products containing Class I substances and bans non-essential products containing or manufactured with Class II substances. The Research facility does not use, manufacture, nor distribute these materials.

q. 45CSR10 – "To Prevent and Control Air Pollution from the Emission of Sulfur Oxides." The Research facility does not have emission sources of sulfur oxides subject to this rule.

☑ 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.

r. 45CSR15 – "Emission Standards for Hazardous Air Pollutants Pursuant to 40 C.F.R. 61." The Research facility is not subject to any requirements under 40 C.F.R. 61.

s. 45CSR16 – "Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. 60." The Research facility is not subject to any requirements under 40 C.F.R. 60.

t. 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, Research is not subject to 45CSR17 because it is subject to the fugitive particulate matter emission requirements of 45CSR7.

u. 45CSR34 – "Emission Standards for Hazardous Air Pollutants for Source Categories Pursuant to 40 C.F.R. 63." The Research facility is not subject to any requirements under 40 C.F.R. 63.

Permit Shield

20. Facility-Wide Applicable Requirements

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

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

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

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

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

☑ 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.)

Monitoring Requirements

3.2.1. 45CSR21. The permittee shall implement and maintain leak detection and repair (LDAR) programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to 45CSR§21-40 producing a product or products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of 45CSR§21-37 or alternate procedures approved by the Director. Procedures approved by the Director, 40 C.F.R. 60, Subpart VV, 40 C.F.R. 61, Subpart V, 40 C.F.R. 63, Subpart H, 40 C.F.R. 63, Subpart TT, 40 C.F.R. 63, Subpart UU, 40 C.F.R. 65, Subpart F, and 40 C.F.R. 265, Subpart CC. This requirement shall apply to all units identified in Appendix A irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63.
Note: The R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.2.1; 45CSR13, R13-2654, 6.1.3; 45CSR§21-40.3.a.2 (State-Enforceable only)]

3.2.2. 45CSR27. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Appendix A in order to reduce the emissions of TAP in accordance with the requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." Compliance with 40 C.F.R. 63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR§27-4 – "Fugitive Emissions of Toxic Air Pollutants."
Note: The R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.2.2; 45CSR13, R13-2654, 6.1.4; 45CSR§27-4.1 (State-Enforceable only)]

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

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

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

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

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

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

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

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

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

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161. [40 C.F.R. 82, Subpart F]

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

☑ 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.)

3.2.3. 45CSR21 and 45CSR27. In the event a source and associated emission point identified in Appendix A are subject to the MACT standards of 40 C.F.R. 63, then compliance with any applicable LDAR program set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the monitoring requirements set forth in this permit. Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.2.3; 45CSR13, R13-2654, 6.1.3; 45CSR13, R13-45CSR§21-37.1.c (State- Enforceable only); 45CSR§27-4.1 (State-Enforceable only)]

Testing Requirements

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

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

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

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

3.1.10. 45CSR21 and 45CSR27. The permittee shall comply with all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points identified in Attachment A of Permit R13-3223 (Appendix A of this Permit).

Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.1.1; 45CSR13, R13-2654, 6.1.3 and 6.1.4]

3.1.11. 45CSR21. The permitted sources identified in Appendix A and recognized as being subject to 45CSR21 shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix A, are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following: [45CSR13, R13-3223, 4.1.2; 45CSR13, R13-2654, 6.1.3]

3.1.11.1. The permittee shall maintain the aggregated hourly and annual VOC control efficiency of 90% or greater, on a site-wide basis, for all existing sources listed or required to be listed as part of the original facility-wide Reasonably Available Control Measures (RACM) plan, as identified in Appendix A. [45CSR13, R13-3223, 4.1.2.1; 45CSR13, R13-2654, 6.1.3; 45CSR§21-40.3.a.1 (State-Enforceable only)]

☑ 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.)

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

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

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

1. The permit or rule evaluated, with the citation number and language.
2. The result of the test for each permit or rule condition.
3. A statement of compliance or non-compliance with each permit or rule condition.

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

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

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

3.1.11.2. On or after May 1, 1996, construction or modification of any emission source resulting in a maximum theoretical emissions (MTE) of VOCs equaling or exceeding six (6) pounds per hour and not listed or required to be listed in the facility-wide RACM plan shall require the prior approval by the Director of an emission control plan that meets the definition of reasonable available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All sources constructed or modified on or after May 1, 1996 shall be subject to the following: [45CSR13, R13-3223, 4.1.2.2; 45CSR13, R13-2654, 6.1.3; 45CSR§21-40.3.c (State-Enforceable only)]

a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13. [45CSR13, R13-3223, 4.1.2.2.a; 45CSR13, R13-2654, 6.1.3; 45CSR§21-40.4.e (State-Enforceable only)]
b. The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 3.1.11.1. [45CSR13, R13-3223, 4.1.2.2.b; 45CSR13, R13-2654, 6.1.3]

3.1.12. 45CSR27. The permitted sources identified in Appendix A and recognized as being subject to 45CSR27 shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix A are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following: [45CSR13, R13-3223, 4.1.3; 45CSR13, R13-2654, 6.1.4]

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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.)

Testing Requirements (continued)

3.3.2. 45CSR21. Manufacturing process units may be exempted upon written request of the permittee to the Director. Exempted units are exempted from the frequency of testing as described in 45CSR§21-37, however, LDAR testing of this unit or certification of emission using approved fugitive emission factors will be required every three years, or upon request by the Director or his duly authorized representative. Waiver or scheduling of LDAR testing every three years may be granted by the Director if written request and justification are submitted by the permittee. Units exempted from testing are not exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verifications by the permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced. [45CSR13, R13-3223, 4.3.1; 45CSR13, R13-2654, 6.1.3; 45CSR§21-40.3.a.2 (State-Enforceable only)]

3.3.3. 45CSR21. In the event a source and associated emission point identified in Appendix A are subject to the MACT standards of 40 C.F.R. 63, then compliance with the applicable LDAR testing requirements set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the LDAR testing requirements set forth in this permit.
Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A.
[45CSR13, R13-3223, 4.3.2; 45CSR13, R13-2654, 6.1.3; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only)]

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

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

20. Facility-Wide Applicable Requirements

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

3.1.12.1. The permittee shall employ the best available technology (BAT) for the purpose of reducing toxic air pollutants (TAP) associated with the applicable sources and emission points identified in Appendix A. [45CSR13, R13-3223, 4.1.3.1; 45CSR13, R13-2654, 6.1.4; 45CSR§27-3.1 (State- Enforceable only)]

3.1.12.2. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routing leakage from those sources and their associated equipment identified in Appendix A as operating in TAP service. [45CSR13, R13-3223, 4.1.3.2; 45CSR13, R13-2654, 6.1.4; 45CSR§27-4.1 (State-Enforceable only)]

Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A.

3.1.13. 45CSR27. In the event a source and associated emission point identified in Appendix A are subject to the MACT standards of 40 C.F.R. 63, then compliance with the applicable MACT requirements identified in the affected 45CSR13 permit shall demonstrate compliance with the BAT requirements set forth in 3.1.12.

Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A.

[45CSR13, R13-3223, 4.1.4; 45CSR13, R13-2654, 6.1.4; 45CSR§27-3.1 (State-Enforceable only)]

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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.)

Recordkeeping Requirements

3.4.1. Monitoring information. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.
[45CSR§30-5.1.c.2.A.; 45CSR13, R13-3223, 4.4.1; 45CSR13, R13-2654, 6.4.1 and 4.4.1]

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

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

3.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [45CSR13, R13-3223, 4.4.2; 45CSR13, R13-2654, 6.4.2]

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

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

3.1.14. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.1 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. [45CSR§13-5.11.; 45CSR13, R13-3223, 4.1.5; 45CSR13, R13-2654, 6.1.5]

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

3.4.5. Records of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-3223, 4.4.3; 45CSR13, R13-2654, 6.4.3]

3.4.6. 45CSR21. Unless granted a variance pursuant to 45CSR§21-9.3, or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40 C.F.R. §63.6(e) or another applicable Section of 40 C.F.R. 63, the owner or operator of the facility shall operate all emission control equipment listed Appendix A as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shut down or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR§21-9.3 with respect to all periods of non-compliance with the emission limitations set forth in the affected 45CSR13 permits and the emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment.
Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.4.4; 45CSR13, R13-2654, 6.1.3]

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

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*).

☑ 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.)

3.4.7. 45CSR27. The permittee shall maintain records of the results of all monitoring and inspections, emission control measures applied, and the nature, timing, and results of repair efforts conducted in accordance to 45CSR§27-10 and set forth in the affected 45CSR13 permits as identified in Appendix A.

Note: For the Research and Development Area, the affected permit is R13-2654; and the R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.4.5; 45CSR13, R13-2654, 6.1.4]

3.5. Reporting Requirements

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

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

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

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*).

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

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

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

US EPA:
Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air Section (3ED21)
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement1;:
DEPAirQualityReports@wv.gov

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

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

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

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*).

☑ 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.)

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

DAQ: DEPAirQualityReports@wv.gov

US EPA: R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

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

DAQ: DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

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

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

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*).

☑ 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.)

3.5.8. Deviations.

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken. [45CSR§30-5.1.c.3.C.]

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

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

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*).

☑ 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.)

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

3.5.10. Reserved

3.5.11. 45CSR21. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) days of notification by the Director that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 1, 1996) has occurred. Such plan shall include those sources listed in Appendix A as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.

Note: The R13-3223 Attachment A listing for only those sources in the Research and Development Area is provided in Appendix A. [45CSR13, R13-3223, 4.5.1; 45CSR13, R13-2654, 6.1.3; 45CSR13, R13-2692, 4.1.9; 45CSR§40.4.c.1 (State-Enforceable only)]

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

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

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)*
R13-2654D	09/17/2015	
R13-3223	12/08/2014	

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
None	Not Applicable	Not Applicable

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	0.0021
Nitrogen Oxides (NO_X)	0
Lead (Pb)	0
Particulate Matter ($PM_{2.5}$)[1]	0.63
Particulate Matter (PM_{10})[1]	3.73
Total Particulate Matter (TSP)	3.73
Sulfur Dioxide (SO_2)	0
Volatile Organic Compounds (VOC)	26.30
Hazardous Air Pollutants[2]	Potential Emissions
Acetonitrile Titanium Tetrachloride	7.92E-5 1.01E-5
Methanol Formaldehyde	0.557 0.0022
Methylene Chloride Maleic Anhydride	0.044 2.21
Hydrogen Chloride Hydrogen Fluoride	0.652 0.95
Trichloroethylene Toluene	2.21 6.63E-5
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Ozone Depleting Substances	0.595
Fluorides (Pre-control / Post Control)	0.024 / 0.0045
Fluorine (Pre-control / Post Control)	0.474 / 0.009

[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.

24. Insignificant Activities (Check all that apply)		
☑	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
☑	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**.
26. Emission Units
For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.
For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.
27. Control Devices
For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

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Section 6: Certification of Information

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

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

a. Certification of Truth, Accuracy and Completeness

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

b. Compliance Certification

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

Responsible official (type or print)

Name: Nicole T. Newell	Title: Plant Manager

Responsible official's signature:

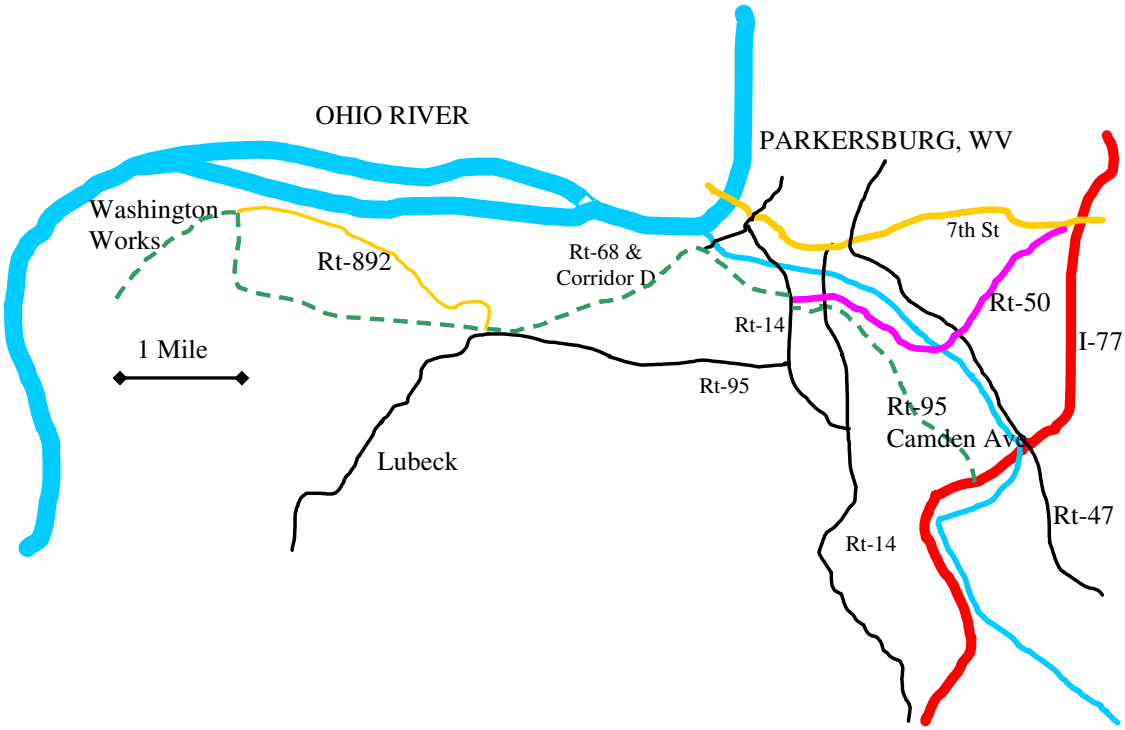
Signature: Nicole T. Newell (Must be signed and dated in blue ink) Signature Date: 4/7/2021

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.

Attachment A - Map to Facility

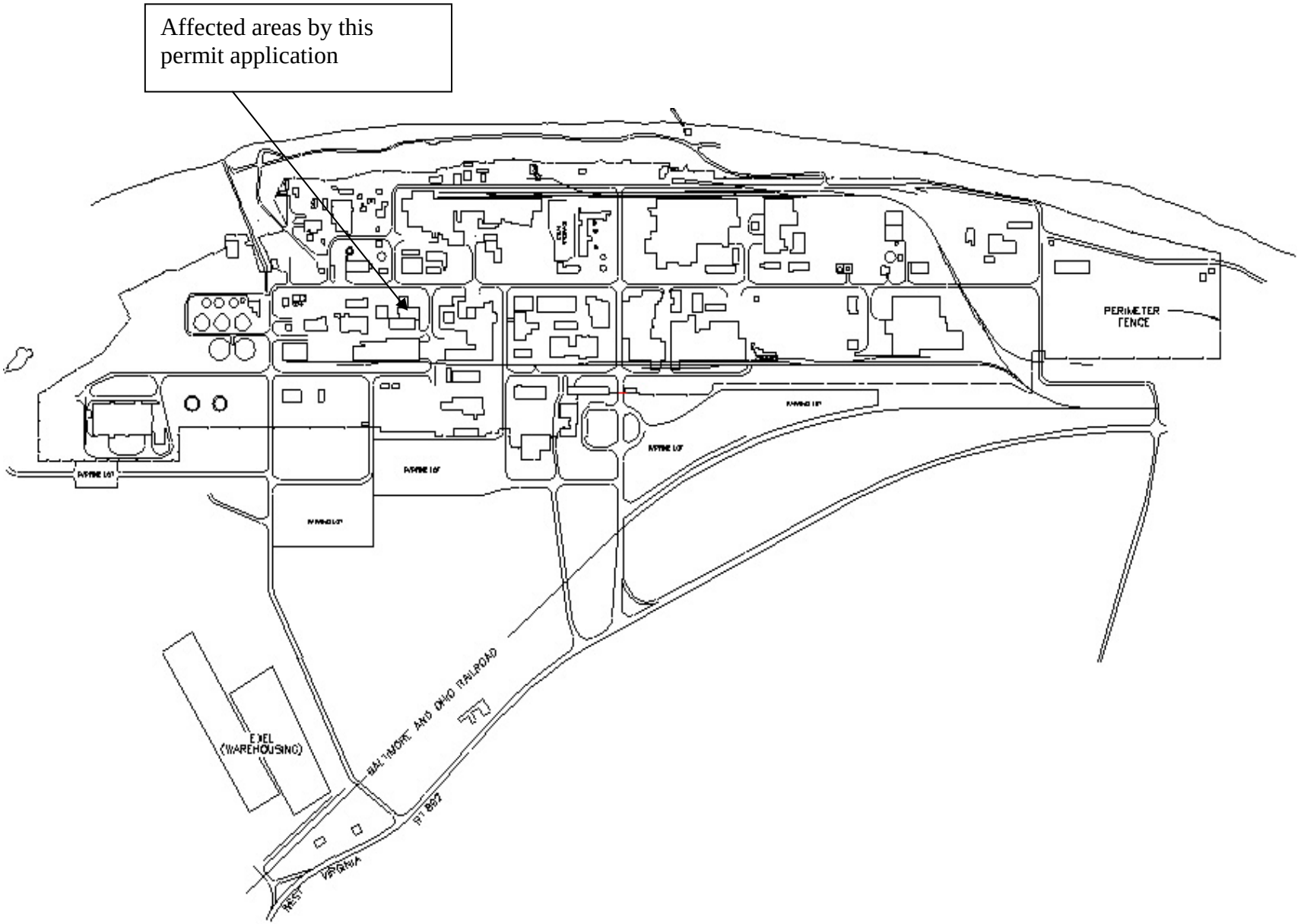
Attachment A – Area Map



From Interstate 77, take exit for Rt-95/Camden Avenue.
Proceed west until intersection with Rt-14 then turn right (north).
After about 1/4 mile turn left onto Corridor D Bypass entrance.
Follow the bypass to the exit just before the bridge.
Turn left (south) onto DuPont Rd, Rt-892.
Proceed approx. 1 mile to facility on right.

Attachment B - Map of Facilities to Show Location of Affected Unit

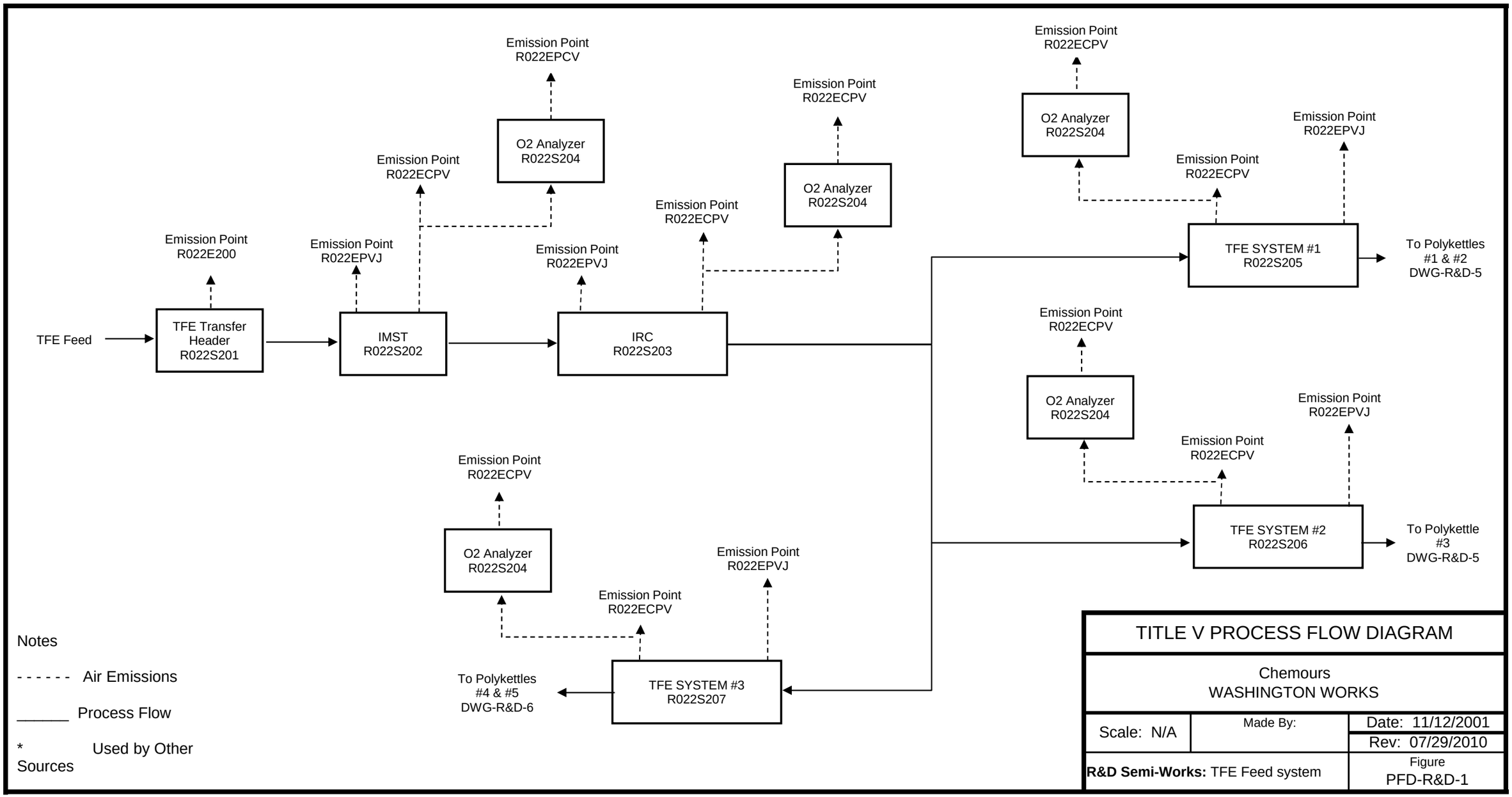
Plant Map

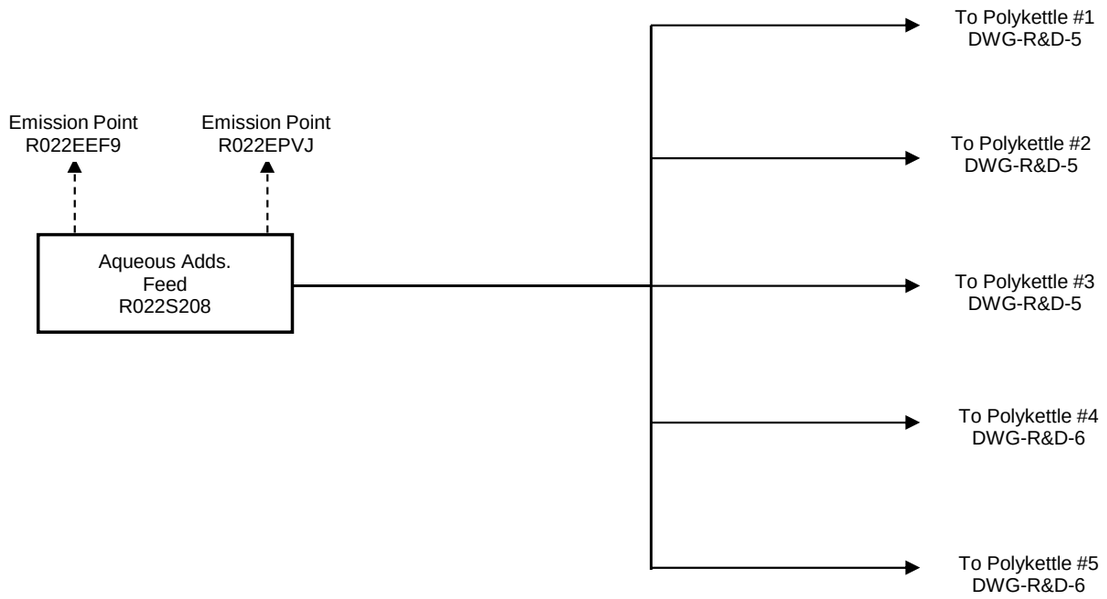


ATTACHMENT B – Plant

Attachment C - Process Flow Diagrams

PFD-R&D-1	**Semi-Works: TFE Feed system**
PFD-R&D-2	**Semi-Works: Aqueous Addition Feed system**
PFD-R&D-3	**Semi-Works: Non-Aqueous Addition Feed system**
PFD-R&D-4	**Semi-Works: HFP Feed System**
PFD-R&D-5	**Semi-Works: PolyKettles #1, #2 & #3**
PFD-R&D-6	**Semi-Works: PolyKettles #4 & #5**
PFD-R&D-7	**Semi-Works: Miscellaneous Equipment**
PFD-R&D-8	**Semi-Works: Parts Cleaner**


Emission Point
R022EPCV
O2 Analyzer
R022S204
Emission Point
R022ECPV
Emission Point
R022ECPV
O2 Analyzer
R022S204
Emission Point
R022ECPV
O2 Analyzer
R022S204
Emission Point
R022EPVJ
Emission Point
R022ECPV
TFE SYSTEM #1
R022S205
To Polykettles
#1 & #2
DWG-R&D-5
Emission Point
R022E200
Emission Point
R022EPVJ
Emission Point
R022EPVJ
TFE Feed
TFE Transfer
Header
R022S201
IMST
R022S202
IRC
R022S203
Emission Point
R022ECPV
O2 Analyzer
R022S204
Emission Point
R022EPVJ
Emission Point
R022ECPV
TFE SYSTEM #2
R022S206
To Polykettle
#3
DWG-R&D-5
Emission Point
R022ECPV
O2 Analyzer
R022S204
Emission Point
R022EPVJ
Emission Point
R022ECPV
To Polykettles
#4 & #5
DWG-R&D-6
TFE SYSTEM #3
R022S207
Notes
Air Emissions
Process Flow
* Used by Other Sources
TITLE V PROCESS FLOW DIAGRAM
Chemours
WASHINGTON WORKS
Scale: N/A
Made By:
Date: 11/12/2001
Rev: 07/29/2010
R&D Semi-Works: TFE Feed system
Figure
PFD-R&D-1



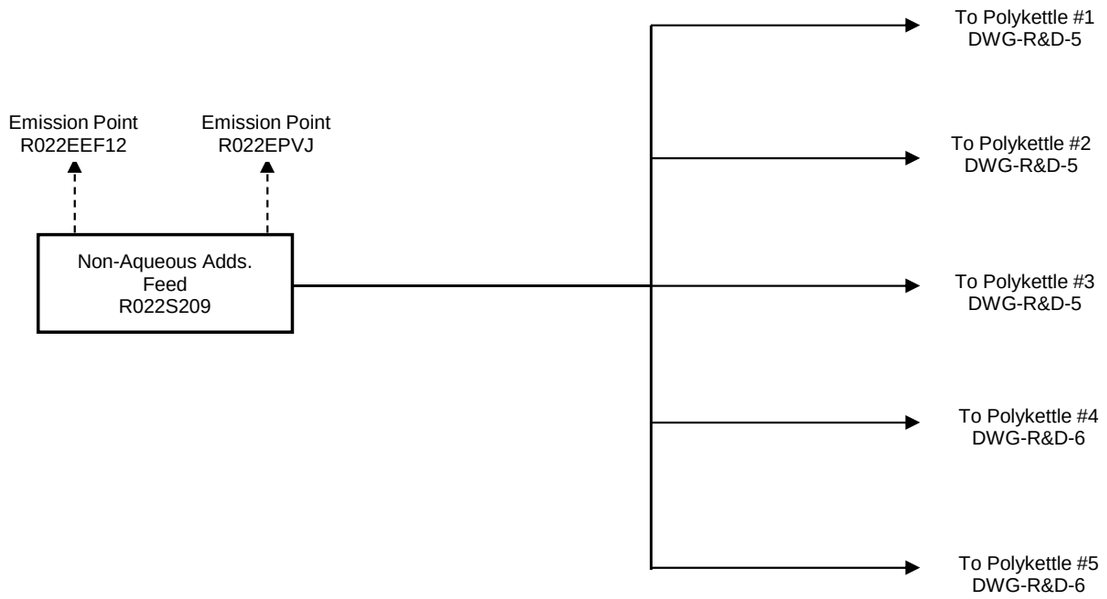
Notes

- - - - - - Air Emissions

_____ Process Flow

* Used by Other Sources

TITLE V PROCESS FLOW DIAGRAM		
Chemours WASHINGTON WORKS		
Scale: N/A	Made By:	Date: 11/12/2001 Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-2



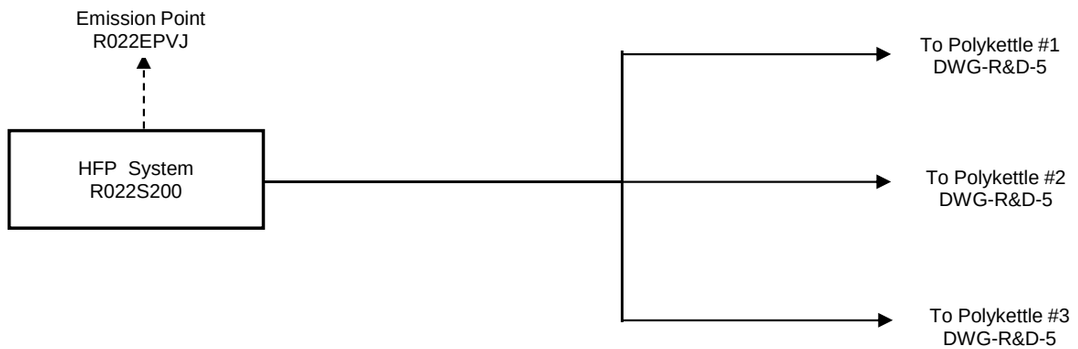
Notes

- - - - - - Air Emissions

_____ Process Flow

* Used by Other Sources

TITLE V PROCESS FLOW DIAGRAM		
Chemours WASHINGTON WORKS		
Scale: N/A	Made By:	Date: 11/12/2001 Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-3



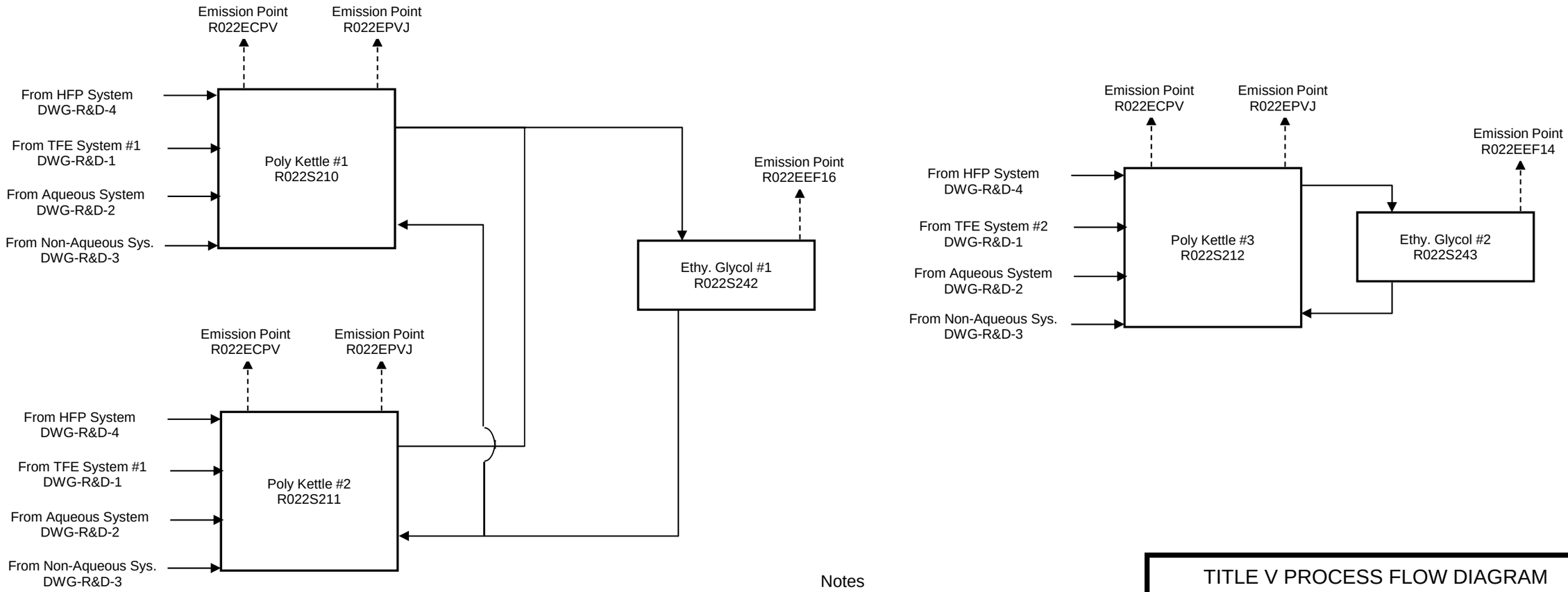
Notes

- - - - - - Air Emissions

_____ Process Flow

* Used by Other Sources

TITLE V PROCESS FLOW DIAGRAM		
Chemours WASHINGTON WORKS		
Scale: N/A	Made By:	Date: 11/12/2001 Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-4



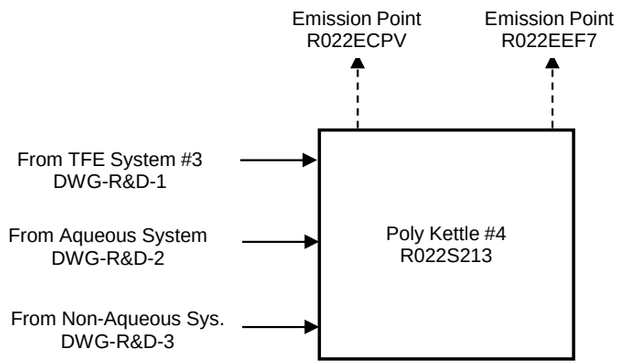
Notes

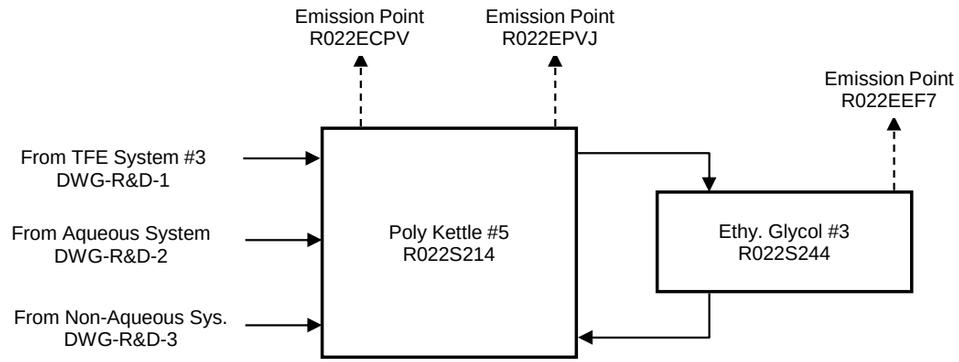
- - - - - - Air Emissions

_____ Process Flow

* Used by Other Sources

TITLE V PROCESS FLOW DIAGRAM		
Chemours WASHINGTON WORKS		
Scale: N/A	Made By:	Date: 11/12/2001 Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-5





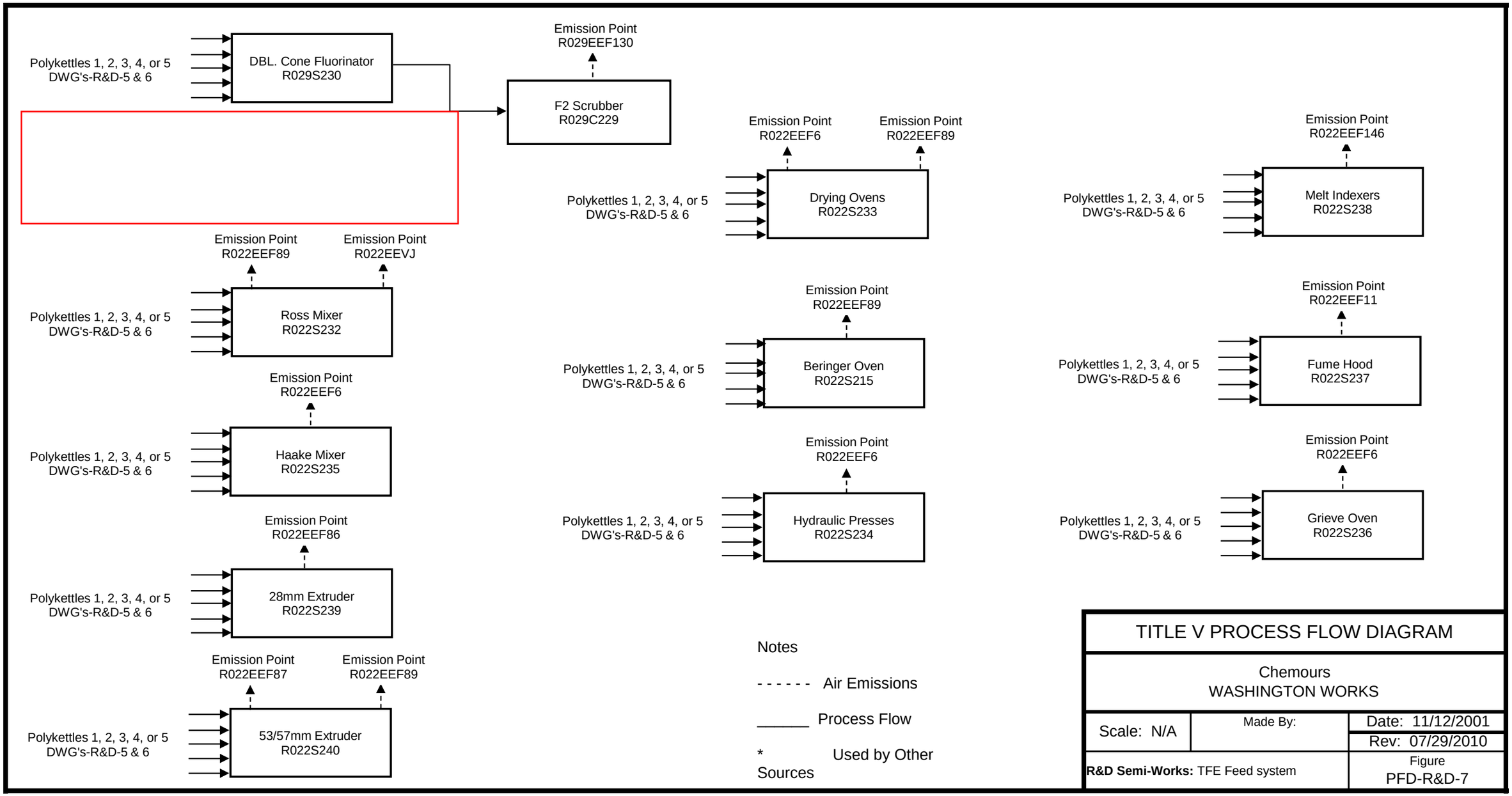
Notes

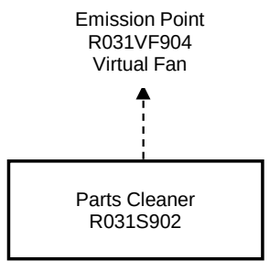
- - - - - - Air Emissions

_____ Process Flow

* Used by Other Sources

TITLE V PROCESS FLOW DIAGRAM		
Chemours WASHINGTON WORKS		
Scale: N/A	Made By:	Date: 11/12/2001 Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-6


Polykettles 1, 2, 3, 4, or 5
DWG's-R&D-5 & 6
DBL. Cone Fluorinator
R029S230
Emission Point
R029EEF130
F2 Scrubber
R029C229
Emission Point
R022EEF6
Emission Point
R022EEF89
Drying Ovens
R022S233
Emission Point
R022EEF146
Melt Indexers
R022S238
Emission Point
R022EEF89
Emission Point
R022EEVJ
Ross Mixer
R022S232
Emission Point
R022EEF89
Beringer Oven
R022S215
Emission Point
R022EEF11
Fume Hood
R022S237
Emission Point
R022EEF6
Haake Mixer
R022S235
Emission Point
R022EEF6
Hydraulic Presses
R022S234
Emission Point
R022EEF6
Grieve Oven
R022S236
Emission Point
R022EEF86
28mm Extruder
R022S239
Emission Point
R022EEF87
Emission Point
R022EEF89
53/57mm Extruder
R022S240
Notes
- - - - - - Air Emissions
_____ Process Flow
* Used by Other Sources
TITLE V PROCESS FLOW DIAGRAM
Chemours
WASHINGTON WORKS
Scale: N/A
Made By:
Date: 11/12/2001
Rev: 07/29/2010
R&D Semi-Works: TFE Feed system
Figure
PFD-R&D-7



Notes

- - - - - - Air Emissions

_____ Process Flow

* Used by Other Sources

TITLE V PROCESS FLOW DIAGRAM

Chemours
WASHINGTON WORKS

Scale: N/A	Made By:	Date: 11/12/2001
		Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-8

Attachment D - Equipment List Document

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
R022EEF007	NONE	R022S213B	REACTOR #4 REACTION VENT	1 LITER	1974
R022EEF007	NONE	RO22S244	COOLANT SYSTEM #3	30 GALLONS	1985
R022EEF009	NONE	R022S208A	FP SW AQ FEEDS VENT	12 LITERS	1980-2000
R022EEF011	NONE	R022S237	FUME HOOD	4 PPH	1964
R022EEF012	NONE	R022S209A	SW NONAQ FEEDS VENT	2.5 LITERS	1980-2000
R022EEF014	NONE	R022S243	COOLANT SYSTEM #2	10 GALLONS	1996
R022EEF016	NONE	R022S242	COOLANT SYSTEM #1	8 GALLONS	1988
R022EEF085	NONE	R022S240C	FEED HOPPER	500 PPH	1976
R022EEF086	NONE	R022S239	SMALL (28MM) EXTRUDER	10 PPH	1974
R022EEF087	NONE	R022S240A	LARGE (53mm) EXTRUDER(NOT IN SERVICE SINCE 2007)	500 PPH	1976
R022EEF089	NONE	R022S215	#1 OVEN (BERRINGER/MINI J)	10.5 PPH	1992
R022EEF089	NONE	R022S232A	ROSS MIXER VENT	0.25 PPH	1985
R022EEF089	NONE	R022S233B	DRYING OVENS	0.2 PPH	1964
R022EEF089	NONE	R022S240B	LARGE WORK HOOD	500 PPH	1976
R022EEF146	NONE	R022S238	SINTER OVEN	0.57 PPH	1964
R022EEVJ	NONE	R022S232B	MIXER EVAC	30 GALLONS	1985
R022EPK1	NONE	R022S210A	REACTOR/MIXER #1 VENT	10 GALLONS	1969
R022EPK2	NONE	R022S211A	REACTOR/MIXER #2 VENT	10 GALLONS	1968
R022EPK3	NONE	R022S212A	REACTOR/MIXER #3 VENT	10 GALLONS	1994
R022EPK5	NONE	R022S214A	REACTOR MIXER #5 VENT	1 GALLONS	1985
R022EPVJ	NONE	R022S200	HFP SYSTEM EVAC	4 GALLONS	1989
R022EPVJ	NONE	R022S205B	FP SW TFE TANK #1 EVAC	14 GALLONS	2004
R022EPVJ	NONE	R022S206B	FP SW TFE TANK #2 EVAC	10 GALLONS	1994
R022EPVJ	NONE	R022S207B	FP SW TFE TANK #3 EVAC	1.2 GALLONS	1985
R022EPVJ	NONE	R022S208B	SW AQ FEEDS EVAC	12 LITERS	1980-2000

[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 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
R031E902	NONE	R031S902	PART CLEANER	50 GALLONS	2002
22-E-215	NONE	22-S-215	MINI CLEANING OVEN	0.15 FT3	2002
22-E-109	NONE	22-S-109	RESEARCH LAB HOOD	2.830ACFM	1970
22-E-202	NONE	22-S-202	Upstairs Leased LAB HOOD (kuraray)	2.830ACFM	1970
22-E-208	NONE	22-S-208	RESEARCH LAB HOOD	2.830ACFM	1970
22-E-209	NONE	22-S-209	Control Lab hood(FTIR lab) upstairs	2.830ACFM	1970
R022EF51	NONE	R022SB05	Lab 114 HOOD	2.815 ACFM	1950
R022EF52	NONE	R022SB0(	Lab 114 HOOD	2.815 ACFM	1950
R022EF63	NONE	R022SB17	LAB 108 HOOD	2.815 ACFM	1950
R022EF65	NONE	R022SB19	LAB 101 (CONTROL LAB) WEST HOOD	2.815 ACFM	1950
R022EF66	NONE	R022SB20	LAB 101 (CONTROL LAB) EAST HOOD	2.815 ACFM	1950
R022EF115	NONE	R022SB36	LAB 210 (CONTROL LAB) DISPERSION HOC	2.815 ACFM	1985
R022EF117	NONE	R022SB38	HOOD	1.500ACFM	1985
R022EF118	NONE	R022S040	HOOD	2.815 ACFM	1985
R022EF132	NONE	R022S047	LOCAL VENT	12.000 ACFM	1985
R022ECPV	NONE	R022S204	FP SW 02 ANALYZER	4.5 SCFM	1978
R022ECPV	NONE	R022S205	FP SW TFE TANK #1 VENT	14 GALLONS	2004
R022ECPV	NONE	R022S206	FP SW TFE TANK #2 VENT	10 GALLONS	1994
R022ECPV	NONE	R022S207A	FP SW TFE TANK #3 VENT	1.2 GALLONS	1985
R022ECPV	NONE	R022S213A	Mothballed/out of service REACTOR #4 MIXED FEED VENT	1 LITRE	1974
R022ECPV	NONE	R022S247	MONOMER TRANSFER LINE	4 GALLONS	2002
R022EEF006	NONE	R022S233A	DRYING OVENS	3.5 PPH	1965-1995
R022EEF006	NONE	R022S234	HYDRAULIC PRESSES HOOD	0.35 PPH	1964-1992
R022EEF006	NONE	R022S235	HAAKE MIXER (SW east)	0.5 PPH	1996
R022EEF0(	NONE	R022S236	#2 OVEN (GRIEVE)	0.05 PPH	1973

[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 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
R022EPVJ	NONE	RO22S209B	SW NONAQ FEEDS EVAC	2.5 LITERS	1980-2000
R022EPCJ	NONE	R022S210B	REACTOR/MIXER #1 EVAC VENT	10 GALLONS	1969
R022EPVJ	NONE	R022S211B	REACTOR/MIXER #2 EVAC VENT	10 GALLONS	1968
R022EPVJ	NONE	R022S212B	REACTOR/MIXER #3 EVAC VENT	10 GALLONS	1994
R022EPVJ	NONE	R022S214B	REACTOR/MIXER #5 EVAC VENT	1 GALLON	1985
R029EEF130	R029C229	R029S230	DOUBLE CONE FLUORINATOR	24 PPH	1985
R029EEF130	R029C229	R029S231	D&R'ed. No longer in service VIBRATING BED FLUORINATOR	NO LONGER IN Semiworks	1987
R031E903	INTEGRAL CYCLONE	R031S903	BEAD BLAST UNIT (SAND BLASTER)	900 ACFM	1993

[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 - Equipment Sheet for Facilities

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
22-S-109	LAB 109 HOOD	

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

EXHAUST HOOD IN LAB 109(EF-117) EP ID: 22-E-109

Manufacturer:	**Model number:**	**Serial number:**
BUFFALO FORGE	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1968	/ / 1970	/ / ; / / / / ; / /

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

2830 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12990 PPH	56896 TONS/YR	8760HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NONE

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene Chloride	0.0013	0.0055
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATES

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
22-S-202	Lab 202 Hood	NA

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

Exhaust Hood in lab 202 (EF-71) EP ID: 22-E-202 Location: upstairs Building 22 leased lab

Manufacturer:	**Model number:**	**Serial number:**
Buffalo Forge	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1968	/ / 1970	/ / ; / / / / ; / /

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

2830 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12,990 PPH	56,896 TON/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene Chloride	0.0013	0.0055
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
Pounds of production or laboratory methods ran, will be recorded each month.
Monthly maintenance records will be kept.
All records of associated records with above will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
22-S-208	LAB 208 HOOD	NONE

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

LAB 208 EXHAUST HOOD EP ID 22-E-208; EF118 LOCATION: TELOMERS GC LAB

Manufacturer:	**Model number:**	**Serial number:**
BUFFALO FORGE		
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1968	/ / 1970	/ / ; / / / / ; / /

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

2830ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12,990 PPH	56,896 TON/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.000001	0.0000044
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
METHYLENE CHLORIDE	0.0013	0.0055
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE POUNDS OF PRODUCTION, OR APPLICABLE LABORATORY TESTS RUN, WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH.

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
22-S-209	Lab Hood	NA

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

Exhaust hood in lab 209 (EF-113) EF ID: 22-E-209 Location: Control Lab-FTIR Lab

Manufacturer:	**Model number:**	**Serial number:**
Buffalo Forge	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1968	/ / 1970	/ / ; / / / / ; / /

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

2830 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12,990 pph	56,896 ton/yr	8760 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene Chloride	0.0013	0.0055
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emissions check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The number of Laboratory Tests run or the Pounds of production will be recorded each month.

Maintenance records will be monitored and recorded each month

All records will be kept for five years.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-047	PPL Area hoods	22-C-001

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

Molding room hoods EP ID R022EF132; AREA HAS BEEN D&R'd

Manufacturer:	**Model number:**	**Serial number:**
BUFFALO FORGE	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

12000ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
50,400	220720 TONS/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.7	3.1
Total Particulate Matter (TSP)	0.7	3.1
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
FORMALDEHYDE	0.00006	0.0003
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

Formaldehyde was part of the 45 CSR 27 compliance plan when the site was solely under the control of DuPont. Chemours no longer generates, or has, sufficient Formaldehyde emissions to trigger 45 CSR 27 when excluding the emissions from the Waste Water treatment plant which must be operated to support HON MACT disposal of the formaldehyde generated by DuPont.. Chemours wishes to entertain the elimination of the 45 CSR 27 applicability for formaldehyde from the Chemours Site Permits.

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE NUMBER OF THE UNITS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-200	HFP System Evacuation Vent	

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

HFP System Evacuation Vent. EP ID R022EPVJ Location Cell #1

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1989	/ / 1989	/ / ; / / / / ; / /

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

Batch process- 4 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	4 batches	4 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	47.4	0.092
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	1.5E-4	2.9E-7
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Ozone Depleting Chemical	0.031	6.2E-5

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A. Method 22,.

The number of Laboratory tests or the units or Pounds of production will be recorded each month.

Maintenance records will be monitored and recorded each month.

All records will be kept for five years.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-204	Oxygen analyzer	none

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

Oxygen analyzer EP ID: R022ECPV

Manufacturer:	**Model number:**	**Serial number:**
Teledyne	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1978	/ / 1978	/ / ; / / / / ; / /

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

4.5 scfm

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.354 pph	5.9 TONS/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	1.354	5.9
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric acid	0.00005	0.00022
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appending A, Method 22.

The number of Laboratory tests or the units or Pounds of production will be recorded each month.

Maintenance records will be monitored and recorded each month.

All records will be kept for five years.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-205B	Tank #1 Evacuation vent	None

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

FP SW TFE Tank #1 Evacuation Vent. EP ID: R022EPVJ. Location: Cell #1

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 2004	/ / 2004	/ / ; / / / / ; / /

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

Batch process- 14 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.17 hr/batch	12 batches	2 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	3.5	0.0035
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	1.3E-4	1.3E-7
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Ozone Depleting Chemical	0.013	1.3E-5

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

Units counts fr Laboratory tests or Pounds of production will be recorded each month.

Maintenance records will be monitored and recorded each month.

All records will be kept for five years.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** none
R022S-206A	Tank #2 vent	

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

FP SW TFE Tank #2 Vent EP ID: R022ECPV Location Cell 3 (SW)

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1994	/ / 1994	/ / ; / / / / ; / /

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

Batch Process-10 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	12 batches	12 batches/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	106.4	0.638
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid	0.004	0.000024
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

Unit numbers of laboratory tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** none
R022S-206B	Tank #2 Evacuation Vent	

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

FP SW TFE Tank #2 Evacuation Vent EP ID: R022EPVJ Location: Cell 3(SW)

Manufacturer:	**Model number:**	**Serial number:**
Custom made by Dupont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 2004	/ / 2004	/ / ; / / / / ; / /

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

Batch Process- 10 gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.17 hr.batch	12 batches	2 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	2.6	0.0026
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	9.6E-5	9.5E-8
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The Unit count of Laboratory tests of the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-207A	Tank #3 Vent	

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

FP SW TFE Tank #3 Vent EP ID: R022ECPV Location: Cell #5

Manufacturer:	**Model number:**	**Serial number:**
Custom Made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

Batch process -1.2 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	12 batches	12 Batches/year

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	12	0.072
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	0.00045	0.0000027
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-207B	Tank#3 Evacuation Vent	None

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

FP SW TFE Tank #3 Evacuation Vent EP ID: R022EPVJ Location: cell 5

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

Batch Process- 1.2 Gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.17 hr/batch	12 batches	2 hr/ yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.29	2.9E-4
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	1.1E-5	1.1E-8
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting chemical	1.1E-3	1.1E-6

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five yearsecords will be kept for five years.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-208A	Aqueous Feed Vent	

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

FP SW Aqueous Feed, EP ID: R022EEF009

Manufacturer:	**Model number:**	**Serial number:**
Gilson	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1980-2000	/ / 1980-2000	/ / ; / / / / ; / /

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

Batch process - 12 liters

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	3500 batches	3500 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	5.4E-3	2.7E-3
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	1.6E-3	1.4E-3
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-208B	Aqueous Feed Evacuation Vent	

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

SW Aqueous Feed Vent, EP ID: R022EPVJ

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1980	/ / 1980	/ / 2000 ; / / / / ; / /

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

Batch Process - 12 liters

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1hr/batch	3500 batches	3500 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	6.2E-3	4.3E-3
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	3.1E-3	2.2E-3
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-209A	Feed Vent	

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

SW Nonqueous Feed Vent EP ID: R022EEF012

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1980	/ / 1980	/ / 2000 ; / / / / ; / /

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

Batch Process 2.5 Liters

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	3500 Batches	3500 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.032	0.019
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid	5.1E-7	1.5E-7
Maleic anhydride & Methyl methacrylate	0.014	4.1E-3
Trichloroethylene	0.018	5.4E-3
Vinyl Accetate	0.012	3.6E-3
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-209B	Non Aqueous Feed Vent	

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

SW Non- aqueous Feed Vent EP ID: R022EPVJ

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1980	/ / 1980	/ / 2000 ; / / / / ; / /

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

Batch Process 2.5 Liters

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	3500 batches	3500hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.13	0.107
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	2.0E-6	1.7E-6
Maleic Anhydride, Methyl Methacrylate	0.055	0.035
Trichloroethylene	0.074	0.047
Vinyl Acetate	0.048	0.031
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting chemicals	2.6E-4	2.2 E-4

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.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-210A	PK1 Reactor Mixer Vent	

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

PK1 Reactor/Mixer#1 Vent EP ID:R022EPK1 Location: cell 1

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1969	/ / 1969	/ / ; / / / / ; / /

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

1 hr./batch--10 gallons Idled awaiting business need since 2016

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 batch/ hr.	700hrs/yr.	700hr/yr.

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	7.8	4.72
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	3.8E-5	1.3E-5
Methanol	0.25	0.088
Acetonitrile	8.0E-5	2.8E-5
Maleic Anhydride, Methyl methacrylate, vinyl acetate, trichloroethylene	0.3	0.68
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting chemical	0.54	0.19

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.).

Engineering Estimates

Applicable Requirements

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

See attachment list for all applicable requirements

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
R022S-210B	PK#1 REACTOR/MIXER EVACUATION	

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

PK#1 REACTOR/MIXER EVACUATION VENT EP ID: R022EPCJ Location: cell 1

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1969	/ / 1969	/ / ; / / / / ; / /

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

BATCH PROCESS - 10 GALLON IDLED AWAITING BUSINESS NEED SINCE 2016

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1HR/BATCH	700 BATCHES	700HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.67	0.235
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
MALEIC ANHYDRIDE, METHYL METHACRYLATE, VINYL ACETATE, TRICHLOROETHYLENE	8.4E-3	2.1E-2
TOLUENE	6.1E-7	2.2E-7
ACETONITRILE	1.3E-7	4.5E-8
METHANOL	4.0E-4	1.4E-4
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
OZONE DEPLETING CHEMICALS	3.1E-3	1.1E-3

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.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-211A	PK2 Reactor/mixer Vent	

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

PK2 Reactor/Mixer #2 Vent, EP ID: R022EPK2 Location Cell 1

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1969	/ / 1969	/ / ; / / / / ; / /

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

1 hr/batch- 10 gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 batch/hr	700 hrs/yr, 700 batches/ yr	700 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	7.8	4.72
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	3.8E-5	1.3E-5
Methanol	0.25	0.088
Acetonitrile	8.0E-5	2.8E-5
Maleic anhydride, Methyl methacrylate, vinyl acetate, trichloroethylene	0.3 each	0.68 each
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting chemical	0.54	0.19

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-211B	PK2 Reactor/mixer Evac Vent	None

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

PK2 Reactor/Mixer #2 Evacuation Vent, EP ID: R022EPVJ Location: SW

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1988	/ / 1988	/ / ; / / / / ; / /

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

1 hr/batch- 10 gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 batch/hr	700 hrs/yr, 700 batches/yr	700 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.67	0.235
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	6.1E-7	2.2E-7
Methanol	4.0E-4	1.4E-4
Acetonitrile	1.3E-7	4.5E-8
Maleic anhydride, Methyl methacrylate, Vinyl acetate, trichloroethylene	8.4E-3 each	2.1E-2 each
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Ozone Depleting Chemical	0.0031	0.0011

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-212A	PK3 Reactor/Mixer Vent	

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

PK3 Reactor/Mixer #3 Vent. EP ID:R022EPK3 Location: SW Cell #3.

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1969	/ / 1969	11 / 01 / 2021 ; / / / / ; / /

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

1 hr/batch- 10 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 batch/hr	700 hrs/yr 700 batches/yr	700 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	7.8	4.72
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	3.8E-5	1.3E-5
Methanol	0.25	0.088
Acetonitrile	8.0E-5	2.8E-5
Maleic anhydride, Methyl methacrylate, Vinyl acetate, Trichlorethylene	0.3 each	0.68 each
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Ozone Depleting Chemical	0.54	0.19

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-212B	PK 3 Reactor/Mixer Evacuation Vent	none

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

PK3 Reactor/Mixer #3 Evacuation Vent. EP ID:R022EPVJ Location Cell #3

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1988	/ / 1988	11 / 01 / 2021 ; / / / / ; / /

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

1 hr/batch

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 batch/hr	700 hrs/yr 700 batches/yr	700 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.67	0.235
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	6.1E-7	2.2E-7
Methanol	4.0E-4	1.4E-4
Acetonitrile	1.3E-7	4.5E-8
Maleic anhydride, Methyl methacrylate, Vinyl acetate, Trichlorethylene	8.4E-3 each	2.1E-2 each
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Ozone Depleting Chemical	0.0031	0.0011

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
R022S-213A	PK4 REACTOR VENT	

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

PK4 REACTOR/MIXED FEED TANK EP ID: R022ECPV

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1974	/ / 1974	/ / ; / / / / ; / /

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

BATCH PROCESS - 1 LITER IDLED AWAITING BUSINESS NEED SNCE 2007

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2HR/BATCH	1400 BATCHES WHEN IN SERVICE	1400 BATCHES/YEAR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.08	0.056
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
HYDROGEN CHLORIDE	0.0000016	0.0000011
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** none
R022S-213B	PK#4 Reactor #4 Vent	

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

PK #4 Reactor Vent EP ID: R022EEF007 Location Cell 8

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1974	/ / 1974	/ / ; / / / / ; / /

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

Batch Process-1 Liter Idled awaiting Business need since 2007

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

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	2.3	0.79
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	0.00008	0.00003
Acetonitrile	0.00008	0.000023
Methanol	0.1	0.035
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting chemical	0.31	0.022

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.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** none
R022S-214A	PK5 Reactor Mixer #5 Vent	

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

PK5 Reactor/Mixer #5 Vent EP ID: R022EPK5 Location Cell 7 (SW)

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

1 HR/Batch- 1 Gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 HR Batch	700 hrs/yr 700 batches/yr	700 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	1.25	0.472
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	3.8E-6	1.4E-6
Methanol	0.25	0.088
Acetonitrile	5.3E-5	1.9E-5
Maleic anhydride. methyl methacrylate, vinyl acetate, trichloroethylene	0.2	0.069
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting zone	0.053	0.019

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.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** none
R022S-214B	PK5 Reactor/Mixer #5 Evacuation Vent	

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

PK5 Reactor/Mixer #5 Evacuation Vent EP ID: R022EPVJ Location: Cell 7

Manufacturer:	**Model number:**	**Serial number:**
Custom Made by DuPont	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1988	/ / 1988	/ / ; / / / / ; / /

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

1 hr/batch - 1 gallon

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 batch/hr	700 hrs/yr 700 batches/yr	700 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	0.066	0023
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	6.1E-8	2.2E-8
Methanol	4.0E-5	1.4E-5
Acetonitrile	8.5E-8	3.0E-8
Maleic anhydride , methyl methacrylate, vinyl acetate, trichloroethylene	3.2E-3	1.9E-3
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting zone	3.1E-4	1.1E-4

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.).

Engineering Estmate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-215	Oven	none

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

Berringer Oven EP ID: R022EEF089 Location: West SW

Manufacturer:	**Model number:**	**Serial number:**
Berringer	Mini J	MJ530
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
1992 / /	1992 / /	/ / ; / / / / ; / /

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

2hr/batch This oven is used as needed through the year

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2hr/batch	208 batches/yr	208 batches/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.028	0.0015
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	6.6E-4	7.0E-5
Total Particulate Matter (TSP)	6.6E-4	7.0E-5
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.063	0.0033
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
HYDROGEN FLUORIDE	0.016	0.0008
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-232A	Ross Mixer	none

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

Ross Mixer West Semi-Works AKA SAP Unit.(Solvent Aided Pelletization) EP ID: R022EEF089

Manufacturer:	**Model number:**	**Serial number:**
Ross	NA	5166
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

15 minute/batch Used as needed to meet business need

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 batches/hr	62.5 hr/yr	62.5 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.66	0.087
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-232B	Ross Mixer Vent	

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

Ross (SAP) Mixer Evacuation Vent: West Semi-Works: EP ID: R022EEVJ

Manufacturer:	**Model number:**	**Serial number:**
Ross	NA	5166
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

0.25 hrs/batch - Used as needed during the year to meet business need

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 batch/hr	62.5 hrs/yr 250 batches/yr	62.5hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.66	0.082
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-233A	DRYING OVEN	NONE

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

GRIEVE DRYING OVEN EP ID R022EEF006; LOCATION: EAST SW

Manufacturer:	**Model number:**	**Serial number:**
GRIEVE	HA850	470042
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

BATCH PROCESS

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
72HR	122 BATCHES	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.0084	0.006
Total Particulate Matter (TSP)	0.0084	0.006
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-233B	Oven	

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

Hotpack Drying Oven EP ID: R022EEF089 location: West Semi-Works

Manufacturer:	**Model number:**	**Serial number:**
Hotpack	212570-14	na

Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1964	/ / 1964	/ / ; / / / / ; / /

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

72 hrs/batch

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.13 batches/hr	122 batches/yr	8760 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.000042	0.0003
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate.

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-234	Hydraulic Press	

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

Hydraulic Press Exhaust Hood EP ID: R022EEF006 Location: East Semi-Works

Manufacturer:	**Model number:**	**Serial number:**
#4 PHI #5 PHI #6 PHI #7 PHI	P210G-X4B-21, SP2100-X4A-21, P2100	92-9-003, 91-1015, 14-3-001, 14-3-002
Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
1964-2020 / /	/ / 1964-2020	/ / ; / / / / ; / /

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

Batch Process 0.35pph

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.7hr/batch	2500 batches	4167 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.5E-5	0.0012
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	3.75E-05	3.9E-05
Total Particulate Matter (TSP)	0.0084	0.006
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.0016	0.0017
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	0.0002	0.00021
Hydrogen Fluoride	0.0004	0.00042
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl14	4.4E-09	4.6E-09

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.).

Engineering Estimate.

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-235	Haake Mixer	

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

Haake Mixer EP ID: R022EEF006 Location: Semiworks East

Manufacturer:	**Model number:**	**Serial number:**
haake	RC300P	1200000419/003
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1996	/ / 1996	/ / ; / / / / ; / /

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

Batch Process

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6 hr/batch	1000 batches	6000 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.3E-5	1.2E-5
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	5.6E-5	2.8E-5
Total Particulate Matter (TSP)	0.0084	0.006
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	0.0016	0.0017
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid	0.0003	0.00015
Hydrofluoric Acid	0.0006	0.0003
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl4	6.6E-9	3.3E-9

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.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-236	Oven	

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

Grieve Oven, EP ID: R022EEF006

Manufacturer:	**Model number:**	**Serial number:**
Custom made	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1973	/ / 1973	/ / ; / / / / ; / /

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

Batch process - 0.05 pph

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	250 batches	250 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.6E-7	2.6E-7
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	6.2E-7	6.5E-7
Total Particulate Matter (TSP)	6.2E-7	6.5E-7
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	2.6E-5	2.6E-5
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric acid	3.3E-6	3.3E-6
Hydrofluoric acid	6.6E-6	6.5E-6
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl4	7.3E-11	7.5E-11

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month.

The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.

The unit count of Laboratory Tests or the Pounds of production will be recorded each month.

Monthly maintenance records will be kept.

All records of checks will be kept for five years

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-237	Fume Hood (solutions)	None

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

Fume Hood, EP ID: R022EEF011 Location: SW east

Manufacturer:	**Model number:**	**Serial number:**
GE	SK182H6268	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1964	/ / 1964	/ / ; / / / / ; / /

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

Batch process

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4 hr/batch	700 batches	175 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	2.1	0.79
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	0.01	0.0035
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
ozone depleting chemical	2.1	0.17

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

_ _ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-238	Sinter Oven	

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

Exhaust Hood Sinter Oven EP ID: R022EEF146 Location: East Semi-Works

Manufacturer:	**Model number:**	**Serial number:**
BUFLO-FG	365BL1	S129710000001
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1964	/ / 1964	/ / ; / / / / ; / /

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

0.5 hr/batch Sintering oven only

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.5 batch/hr	7500 hrs/yr 15,000 batches/yr	7500hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.6E-5	7.0E-6
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	6.4E-5	1.8E5
Total Particulate Matter (TSP)	6.4E-5	1.8E5
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.027	0.00073
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
ODC	7.5E9	2.1E-9
Hydrogen Fluoride	6.8E-4	1.9E-4
Hydrogen Chloride	3.4E-4	9.4E-5
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl4	7.5E-9	2.1E-9

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-239	Extruder (28mm)	None

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

Small Extruder Vent, EP ID: R0EEF086 Location: SW West,

Manufacturer:	**Model number:**	**Serial number:**
WERNER-PFLEIDERER	NA	150047
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1974	/ / 1974	/ / ; / / / / ; / /

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

5 hr/day- 10pph Extruder operates only for R&D purposes

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
5 hr/day	800 hrs/yr	800 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.6E-4	1.9E-4
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.012	0.0005
Total Particulate Matter (TSP)	0.012	0.0005
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.046	0.019
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride	0.006	0.0025
Hydrogen Fluoride	0.12	0.005
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl4	1.4E-7	6.0E-8

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-240A	Extruder (53mm)	None

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

Large Extruder Vent, EP ID: R022EEF087 Location: SW West

Manufacturer:	**Model number:**	**Serial number:**
WERNER-PFLEIDERER CORP.	ZSK53L	3734
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 1976	/ / 1976	/ / ; / / / / ; / /

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

6 hr/day - 500pph

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
5 hr/day	1560 hrs/yr	1560 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.023	0.0182
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.056	0.044
Total Particulate Matter (TSP)	0.056	0.044
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	2.31	1.81
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric Acid	0.3	0.234
Hydrofluoric acid	0.6	0.47
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl4	6.6E-6	5.0E-6

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

____ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? ✔ Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-240B	Large Vent Hood	

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

Location: SW West, EP ID: R022EEF089

Manufacturer:	**Model number:**	**Serial number:**
WERNER-PFLEIDERER	ESA120	180017

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1976	/ / 1976	/ / ; / / / / ; / /

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

500PPH

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.17 batches/hr	1560 hrs/yr	1560 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.023	0.018
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.0560	0.044
Total Particulate Matter (TSP)	0.056	0.044
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	2.31	1.81
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Fluoride	0.6	0.47
Hydrogen Chloride	0.3	0.234
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
TiCl4	6.6E-6	5.0E-6

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

____ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-240C	Feed Hopper	None

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

Feed Hopper, EP ID: R022EEF085 Location: SW West

Manufacturer:	**Model number:**	**Serial number:**
Custon made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1988	/ / 1988	/ / ; / / / / ; / /

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

Batch process

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2 hr/batch	350 Batches	780 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.1	0.078
Total Particulate Matter (TSP)	0.1	0.078
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

Monitoring shall be by performing a visible emissions check on the stack once per month, not to exceed 45 days. The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22. Production records will be monitored and recordedmonthly. Maintenance and repairs will be monitored and recorded monthly. All records of checks will be kept for five years.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
R022S-242	COOLANT SYSTEM #1	

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

COOLANT SYSTEM #1 EP ID: R022EEF016

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1988	/ / 1988	/ / ; / / / / ; / /

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

BATCH PROCESS - 8 GALLON

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1HR/BATCH	10 BATCHES	10HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	6.0E-6	3.0E-8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
ETHYLENE GLYCOL	6.0E-6	3.0E-8
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
R022S-243	COOLANT SYSTEM #2	

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

COOLANT SYSTEM #2 EP ID: R022EEF014

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1996	/ / 1996	/ / ; / / / / ; / /

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

BATCH PROCESS - 10 GALLON

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1HR/BATCH	10 BATCHES	10HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	7.6E-6	3.8E-8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
ETHYLENE GLYCOL	7.6E-6	3.8E-8
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
R022S-244	COOLANT SYSTEM #3	

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

COOLANT SYSTEM #3 EP ID: R022EEF007

Manufacturer:	**Model number:**	**Serial number:**
DUPONT	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

BATCH PROCESS - 30 GALLON

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 HR/BATCH	10 BATCHES	10 HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	2.4E-5	1.2E-7
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
ETHYLENE GLYCOL	2.4E-5	1.2E-7
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** none
R022S-247	Line Vent	

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

Monomer transfer line vent EP ID: R022ECPV Location North of B22

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 2002	/ / 2002	/ / ; / / / / ; / /

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

Batch Process- 4 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	1500 batches	1500 batches/year

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	0.88	0.66
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R022S-B05	Exhaust Hood	

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

Exhaust Vent (EF051) EP ID: R022E-F51 Location Lab 114

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / / / ; / /

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

2815 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	4.5X10^7	0.000002
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
R002S-B06	Exhaust Hood	

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

Exhaust vent (EF-52) EP ID: R022E-F52 Location: Lab 114

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / / / ; / /

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

2815 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	4.5X10^7	0.000002
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

Applicable Requirements

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

See attachment list for allapplicable requirements

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-B17	Lab 108 Exhaust Hood	NONE

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

Exhaust Vent (EF-63) EP ID: R022E-F63 Location: Lab 108 West side.

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / / / ; / /

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

2815 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	4.5X10^7	0.000002
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-B19	LAB 101 HOOD	NA

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

Exhaust Hood EF-65 EP ID: R022E-F65 Location Lab 101 west side

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / / / ; / /

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

2815 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12,990 pph	56,896 ton/yr	8760 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene Chloride	0.0013	0.0055
	NA	NA
	NA	NA
	NA	NA
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	NA	NA
	NA	NA
	NA	NA

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-B20 (same as 22-S-101)	Lab Hood	NA

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

Location:Lab101 East Exhaust hood in Lab 101 (EF-66), EP ID: R022E-F66

Manufacturer:	**Model number:**	**Serial number:**
NA	NA	NA
Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / / / ; / /

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

2815 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12,990 pph	56,896 ton/yr	8760 hr/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene chloride	0.0013	0.0055
	NA	NA
	NA	NA
	NA	NA
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	NA	NA
	NA	NA
	NA	NA

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-B36	Exhaust Hood	

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

Location: Lab 210 Exhaust Fan (EF-115) EP ID: R022E-F115

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

Construction date: (MM/DD/YYYY)	**Installation date:** (MM/DD/YYYY)	**Modification date(s):** (MM/DD/YYYY)
/ / 1985	/ / 1985	NA / / ; / / / / ; / /

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

2815 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.0006	0.0026
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon monoxide	5.67X10^-5	0.0002
Formic acid	0.0005	0.00219
TOC	0.0006	0.0026

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.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-B38	LAB HOOD	NONE

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

LAB 109 VENTED CABINET EP ID R022S-F119; LOCATION: LAB 109

Manufacturer:	**Model number:**	**Serial number:**
BUFFALO FORGE		
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

1500ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6300 PPH	27594 TON/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
METHYLENE CHLORIDE	0.0013	0.0055
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-B40	LAB HOOD	NONE

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

LAB 208 VENTED CABINET EP ID R022E-F119; LOCATION: TELOMERS GC LAB

Manufacturer:	**Model number:**	**Serial number:**
BUFFALO FORGE		
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

1500ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6300 PPH	27594 TON/YR	8760 HR/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.000001	0.0000044
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
METHYLENE CHLORIDE	0.0013	0.0055
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATE

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R029S-230	Double Cone Fluorinator	R029C-229

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

Evacuation Vent EP ID: R029EEF130 Location: BLDG 29

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 1985	/ / 1985	/ / ; / / / / ; / /

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

Batch Process-24pph

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
8 hrs/batch	156 batches	1248 hrs/yr

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO_X)	NA	NA
Lead (Pb)	NA	NA
Particulate Matter ($PM_{2.5}$)	NA	NA
Particulate Matter (PM_{10})	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO_2)	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Fluoride	4.4E-3	3.0E-3
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Fluorides	5.7E-3	4.5E-3
Fluorine	0.15	9.0E-3

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.).

Engineering Estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** NONE
R031S902	PARTS CLEANER	

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

PARTS CLEANER EPID: R031E902

Manufacturer:	**Model number:**	**Serial number:**
SAFETY KLEEN	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 2002	/ / 2002	/ / ; / / / / ; / /

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

50 GALLON

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	NA	8760HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	0.206	0.9
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATES

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R031S903	SAND/BEAD BLASTER	INTEGRAL CYCLONE/BAG FILTER

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

SAND/BEAD BLASTER EPID: R031E903

Manufacturer:	**Model number:**	**Serial number:**
ZERO MFG CO	BPN 220-1	262914

Construction date: (MM/DD/YYYY)	**Installation date: (MM/DD/YYYY)**	**Modification date(s): (MM/DD/YYYY)**
/ / 2002	/ / 2002	/ / ; / / / / ; / /

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

900 ACFM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
3780 PPH	16556 TONS/YR	8760HRS/YR

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})	0.104	0.455
Total Particulate Matter (TSP)	0.104	0.455
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ENGINEERING ESTIMATES

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
R022S-205A	Tank #1 vent	

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

FP SW TFE Tank #1 Vent. EP ID:R022ECPV Location: Cell #1.

Manufacturer:	**Model number:**	**Serial number:**
Custom made by DuPont	NA	NA
Construction date: **(MM/DD/YYYY)**	**Installation date:** **(MM/DD/YYYY)**	**Modification date(s):** **(MM/DD/YYYY)**
/ / 2004	/ / 2004	/ / ; / / / / ; / /

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

Batch process- 14 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1 hr/batch	12 batches	12 batches/year

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

Does this emission unit combust fuel? ___Yes ✔ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	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)	146.4	0.878
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrochloric acid	0.0054	0.000033
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate

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.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

✔ 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.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

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

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

Attachment F - Compliance Plans - Negative Declaration

ATTACHMENT F - Schedule of Compliance Form	
Complete this section if you indicated noncompliance with any of the applicable requirements identified in the permit application. For each emission unit which is not in compliance, identify the applicable requirement, the reason(s) for noncompliance, a description of how the source will achieve compliance, and a detailed schedule of compliance. If there is a consent order that applies to this requirement, attach a copy to this form.	
1. Applicable Requirement None - no out of compliance issues	
Unit(s):	**Applicable Requirement:**
2. Reason for Noncompliance:	
3. How will Compliance be Achieved?	
4. Consent Order Number (if applicable):	
5. **Schedule of Compliance.** Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.	
Remedial Measure or Action	Date to be Achieved
6. Submittal of Progress Reports.	
Content of Progress Report:	**Report starting date:** _____ MM/DD/YYYY **Submittal frequency:**

Schedule of Compliance Form (compliance_schedule.doc)
Page 1 of 1
Revised – 8/18/04 Schedule of Compliance Form

Attachment G - Control Device Data Sheets

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:	**List all emission units associated with this control device.**	
R029-C229	R029-S230	
Manufacturer:	**Model number:**	**Installation date:** MM/DD/YYYY
DuPont Internal Design	N/A	1985

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Absorber	___ 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
Hydrogen Fluoride	90%	90%
Fluorine	90%	90%
Fluorides	90%	90%

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

Scrubbing liquor used in the unit is a nominal 10% solution of KOH. It is made up from adding 45% KOH from a drum to maintain the scrubbing efficiency.
Liquor pressure to the scrubber spray distribution is a nominal 80 psig with actual pressure drop through the scrubber is 10 inches water column.
Liquor flow rate is a nominal 35 gpm.
Design gas flow rate through the scrubber is 2.4 ACFM at 482 degrees F and 1.45 psia. Average gas flow is 1.44 ACFM.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _✔_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Flow below applicability trigger.

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

Performance is monitored by measuring the concentration of KOH after every third (3rd) cylinder of fluorine consumed. KOH concentration is maintained greater than or equal to 8% KOH in solution.

Attachment H - Compliance Assurance Monitoring Declaration

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

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

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): ☐ YES ☑ NO

a. The PSEU is located at a major source that is required to obtain a Title V permit;

b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is NOT exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
- Stratospheric Ozone Protection Requirements.
- Acid Rain Program Requirements.
- Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
- An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).

c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;

d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND

e. The PSEU is NOT an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

☐ RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has NOT yet been approved need to be addressed in this CAM plan submittal.

☐ INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

☐ SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.

3) [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
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:	**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:

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: