



AIR POLLUTION CONTROL DISTRICT
LOUISVILLE, KENTUCKY

GREG FISCHER
MAYOR

LAUREN ANDERSON, DIRECTOR

July 15, 2011

Manager, IT, ISO REG Affairs
Mr. Mike Wright
4730 Crittenden Drive
Louisville, KY 40209

Dear Mr. Wright:

Enclosed is the approved Title V renewed permit P-120-97-TV (R2) and accompanying Statement of Basis (SoB) issued by the Louisville Metro air Pollution District. This permit includes both general and specific conditions. Compliance with these permit conditions help maintain a healthy environment for the citizens of Louisville.

The District encourages facilities to investigate pollution prevention. These efforts can save you money, while reducing pollution and energy consumption. For more guidance on identifying opportunities for waste reduction and energy efficiency, please contact the Kentucky Pollution Prevention Center at (502) 852-0965.

Please do not hesitate to contact the Permit Engineer identified on the permit at (502) 574-6000 if you have any questions regarding the permit or permit conditions.

Sincerely,

Paul G. Aud, P.E.
Engineer Manager

Enclosures: Permit: Title V Operating Permit: P-120-97-TV (R2)
Title V Permit Statement of Basis (SoB)

PA: da



Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745



Title V Operating Permit

Permit No.: 120-97-TV (R2)

Plant ID: 0185

Effective Date: 8/15/2011

Expiration Date: 8/31/2016

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Nuplex Resins LLC
4730 Crittenden Drive
Louisville, KY 40209

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Application No. 11115

Application Received: 10/23/2008

Permit Writer: Karen Thorne

A handwritten signature in blue ink, appearing to read "Paul Gaud".

Air Pollution Control Officer

Administratively Complete: 12/28/2009

Date of Public Notice: 2/12/2011

Date of Proposed Permit: 5/27/2011

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Title V Permit Revisions/Changes

Revision No.	Issue Date	Public Notice Date	Type	Page No.	Description
Initial	10/5/2000	6/25/2000	Initial	Entire Permit	Initial Permit Issuance
R1	1/30/2004	NA	Revision	Cover page, U3, U4, U7, U9, U12, and U18	Incorporating Construction permits 85-01, 125-02, and 126-02. Adding 40 CFR 63 Subpart OOO conditions, deleting unit U12 (Solvent recovery), and changing responsible official
R2	07/15/2011	02/12/2011	Revision	Entire Permit	See Notes 1 and 2.

Notes:

- 1) The District changed the permit from a FEDOOP back to a Title V.
- 2) The District made the change U21 cold solvent parts washer to U21 cleaning operation.

Abbreviations and Acronyms

AFS	-	AIRS Facility Subsystem
AIRS	-	Aerometric Information Retrieval System
APCD	-	Air Pollution Control District
ASL	-	Adjusted Significant Level
atm	-	Atmosphere
BACT	-	Best Available Control Technology
Btu	-	British Thermal Unit
CEMS	-	Continuous Emission Monitoring System
CAAA	-	Clean Air Act Amendments (15 November 1990)
HAP	-	Hazardous Air Pollutant
hr	-	hour
lb	-	Pounds
l	-	Liter
MACT	-	Maximum Achievable Control Technology
m	-	Meter
mg	-	Milligram
mm	-	Millimeter
MM	-	Million
MOCS	-	Management of Change System
NAICS	-	North American Industry Classification System
NSR	-	New Source Review
NO _x	-	Nitrogen oxides
NSPS	-	New Source Performance Standards
PM	-	Particulate Matter
PM ₁₀	-	Particulate matter less than 10 microns
ppm	-	Parts per million
PSD	-	Prevention of Significant Deterioration
PMP	-	Preventive Maintenance Plan
psia	-	Pounds per square inch absolute
RACT	-	Reasonably Available Control Technology
SC	-	Specific Condition
SIC	-	Standard Industrial Classification
SIP	-	State Implementation Plan
SO ₂	-	Sulfur dioxide
TAC	-	Toxic Air Contaminant
TAL	-	Threshold Ambient Limit
TAP	-	Toxic Air Pollutant
tpy	-	Tons per year
UTM	-	Universal Transverse Mercator
VOC	-	Volatile Organic Compound

Preamble

Title V of the Clean Air Act Amendments of 1990 required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Louisville, Kentucky, the Air Pollution Control District (LMAPCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations".

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit general conditions define requirements which are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the general conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The general conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The source's Title V permit may include a current list of "insignificant activities," as defined in District Regulation 2.16, Section 1.22, as of the date the permit was proposed for review by EPA, Region 4. Insignificant activities identified in District Regulation 2.02, Section 2 may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4. Insignificant activities identified in District Regulation 2.02, Section 2 shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. (Regulation 2.16, Sections 4.1.3, 4.1.13.1 and 4.1.13.7)
2. **Compliance Certification** - The owner or operator shall certify, annually or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, Sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification directly to the following address as well as to the District, as set forth in Regulation 2.16, Section 4.3.5.4:

*US EPA - Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960*

3. **Compliance Schedule** - A compliance schedule must meet the requirements of Regulation 2.16, Section 3.5.9.5. The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:
 - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.
 - b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.
4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, it shall,

upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, Section 3.4.

5. **Emergency Provision**

- a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An emergency occurred and that the owner or operator can identify the cause of the emergency.
 - ii. The permitted facility was at the time being properly operated.
 - iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.
 - iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. (Regulation 2.16, Sections 4.7.1 through 4.7.4)

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5percent per month up to a maximum of 25percent of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. (Regulation 2.08, Section 1.3)

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically, "District Only Enforceable Conditions", all terms and conditions of this permit, including any

provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. (Regulation 2.16, Sections 4.2.1 and 4.2.2)

9. **Enforcement Action Defense**

- a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. (Regulation 2.16, Sections 4.1.13.2 and 4.1.13.3)

10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. (Regulation 2.16, Section 4.1.13.6)

If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA. (Regulation 2.07, Section 10.2)

12. **Insignificant Activities** - The owner or operator shall:

- a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. (Regulation 2.16, Section 5)
- b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. (Regulation 2.16, Section 4.3.5.3.6)

13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours:

- a. Enter the premises to inspect any emissions-related activity or records required in this permit.

- b. Have access to and copy records required by this permit.
- c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.
- d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements. (Regulation 2.16, Section 4.3.2)

14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, Section 4.1.9. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be January 1st through June 30th and July 1st through December 31st of each calendar year. All reports shall be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. All semi-annual compliance reports shall include the following certification statement per Regulation 2.16.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete”.
- Signature and title of company responsible official.

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form 9400-A and Form AP-0208) to the District within 30 calendar days following the date a change in the, RO occurs for this facility.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 st through June 30 th	August 29 th
July 1 st through December 31 st	March 1 st

15. **Off-permit Documents**- Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, Section 5. (Regulation 2.16, Section 4.1.5)

16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, Section 5.8.
17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, Sections 2.3 and 5.4.
18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, Sections 3 and 5.2.
19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, Section 4.1.8.3.
20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, Sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.
21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. (Regulation 2.16, Section 4.1.16)
22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, Section 5.5.
23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, Section 5.7, and all other applicable District Regulations.
24. **Permit Revocation and Termination by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, Section 5.11.1.1 through 5.11.1.5. For purposes of Section 5, substantial or unresolved noncompliance includes, but is not limited to:
 - a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment.

- b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District.
 - c. Knowingly making any false statement in any permit application.
 - d. Noncompliance with Regulation 1.07, Section 4.2; or
 - e. Noncompliance with KRS Chapter 77.
25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, Section 4.6.1.
26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.
27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, Section 4.1.13.5.
28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, Section 1; and 2.16, Sections 5.1.1.2 and 5.5.4.
29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.
30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.
31. **Risk Management Plan (112(r))** - For each process subject to Section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.
32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. (Regulation 2.16, Section 4.1.12)
33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.
34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.
35. **Submittal of Reports, Data, Notifications, and Applications**

- a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.11.7 shall be submitted to:

***Louisville Metro Air Pollution Control District
850 Barret Ave
Louisville, KY 40204-1745***

- b. Documents which are specifically required to be submitted to EPA as set forth in Regulation 2.16 sections 3.3, and 5.8.5 shall be mailed to EPA at the following address:

***US EPA - Region IV
APTMD - 12th floor
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104***

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Provisions
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees (Emission Fee, Permit Fees and Permit Renewal Procedures)
5.01	General Provisions (Standards for Toxic Air Contaminants and Hazardous Air Pollutants)
5.11	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

- a. Any facility having any refrigeration equipment normally containing fifty (50) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added according to 40 CFR 82.166;
- b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166.
- d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service,

maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

- e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;
- g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40CFR82 Subpart A, Production and Consumption Controls. (Regulation 2.16, Section 4.1.5)

Source-Wide Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. VOC**

The owner or operator shall not allow or cause the *plant-wide* VOC emissions to equal or exceed 50 tons during any consecutive 12-month period and 5.00 tons during any calendar month. (Regulation 2.08, Section 2.6.5.4)

b. PM

The owner or operator shall not allow or cause the *plant-wide* PM emissions to equal or exceed 50 tons during any consecutive 12-month period and 5.00 tons per month. (Regulation 2.08, Section 2.6.5.4)

c. HAP

i. The owner or operator shall not allow or cause the *plant-wide* emissions of any individual HAP to equal or exceed 10 tons during any consecutive 12-month period and 1.00 tons during any calendar month. (Regulation 2.03) (See Comment 1.)

ii. The owner or operator shall not allow or cause the *plant-wide* emissions of all HAPs combined to equal or exceed 25 tons during any consecutive 12-month period and 2.50 tons during any calendar month. (Regulation 2.03) (See Comment 1.)

d. Odor

The owner or operator shall not emit or cause to be emitted into the ambient air any substance that creates an objectionable odor beyond the facility's property line. An odor will be deemed objectionable when documented investigation by the District includes, as a minimum, observations on the odor's nature, intensity, duration, and location, and evidence that the odor causes injury, detriment, nuisance, or annoyance to person or to the public. (Regulation 1.13, Section 2.1)

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)**a. VOC**

The owner or operator shall calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each month in the reporting period.

b. PM

The owner or operator shall calculate and record the *plant-wide* monthly and consecutive 12-month PM emissions for each month in the reporting period.

c. HAP

- i. The owner or operator shall maintain monthly records including calculations that show the calendar month and rolling 12-month *plant-wide* emissions of each individual HAP.
- iii. The owner or operator shall maintain monthly records including calculations that show the calendar month and rolling 12-month *plant-wide* total HAP emissions.

d. Odor

- i. The owner or operator shall keep a log for odor complaints and results of a daily survey of odors conducted around the plant property line during normal process operation. For any odor complaints or any odorous events determined as a result of the daily odor surveys, the owner or operator shall maintain the following records:
 - 1) The date and time of the complaint or odorous event;
 - 2) A description of the nature of the complaint or odorous event, including the character, time and duration of the event and, if known, the wind direction at the time of the complaint;
 - 3) Summary information on any causes or reasons determined for each event,
 - 4) Corrective action taken to minimize the extent of each event, and
 - 5) Any measures implemented to prevent reoccurrence.
- ii. The owner or operator shall notify the District of any odor complaints within one business day of receiving the complaint.

S3. Reporting (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

a. VOC

The owner or operator shall report the *plant-wide* monthly and consecutive 12-month VOC emissions for each month in the reporting period.

b. **PM**

The owner or operator shall report the *plant-wide* monthly and consecutive 12-month PM emissions for each month in the reporting period.

c. **HAP**

i. The owner or operator shall report the monthly and consecutive 12-month *plant-wide* emissions of each individual HAP for each month in the reporting period.

ii. The owner or operator shall report the monthly and consecutive 12-month *plant-wide* emissions of total HAP for each month in the reporting period.

d. **Odor**

The owner or operator shall report the information recorded in S2.d.i.1) through S2.d.i.5). If there were no odorous events recorded during a reporting period, the compliance report must include a statement that there were no odorous events recorded during the reporting period.

Source-Wide Comments

1. The HAP emission limits were taken to avoid applicability of 40 CFR 63 Subpart FFFF, *Miscellaneous Organic NESHAP(MON)*. The limits will ensure that the source remains a synthetic minor source for HAPs for future standards promulgated under 40 CFR 63. The source is subject to 40 CFR 63 Subpart OOO, *National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins*.

Emission Unit U3: Resin Production Facility for Amino and Alkyd Resins**U3 Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>1.05</u>	Compliance with Emission Standards and Maintenance Requirements	1, 4 and 5
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>6.24</u>	Standards of Performance for Existing Sources Using Organic Materials	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>40 CFR 63 Subpart A</u>	General Provisions	63.1 through 63.15
<u>40 CFR 63 Subpart OOO</u>	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins	63.1400, 63.1401, 63.1402, 63.1403, 63.1406, 63.1410, 63.1413, 63.1414, 63.1415, 63.1416, 63.1417

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4, 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U3 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E12	One (1) 850 gallon K6 weigh tank, TK-60, 1980	5.01, 5.21, 5.23, 7.25, 40 CFR 63 Subpart OOO	NA
E13	One (1) 2,100 gallon K6 recycle tank, TK-62, 1953	5.01, 5.21, 5.23, 6.24, 40 CFR 63 Subpart OOO	
E14	One (1) 3,000 gallon K6 recycle tank, TK-63, 1953	5.01, 5.21, 5.23, 6.24, 40 CFR 63 Subpart OOO	
E15	One (1) 5,000 gallon K6 reactor, RX-06, with reflux condenser C5, 1967 (See Comment <u>7</u> .)	5.01, 5.21, 5.23, 6.09, 6.24, 40 CFR 63 Subpart OOO	C12
E10	One (1) 7,800 gallon K6 catch tank KO-50, 1983	5.11, 7.25, 40 CFR 63 Subpart OOO	NA
E214	One (1) 500 gallon K6 recycle weigh tank, TK-61, 1953	5.11, 7.25, 40 CFR 63 Subpart OOO	
E15-a	One (1) packed tower separator system to recycle alcohols back into the process from K6 reactor, 1967 (See Comment <u>8</u> .)	5.01, 5.12, 5.21, 5.23, 7.25, 40 CFR 63 Subpart OOO	
BLDG4	Building 4 fugitive emissions	5.01, 5.21, 5.23	

U3 Control Devices

ID	Stack ID	Description	Performance Indicator
C12	S-20/33	Venturi Scrubber	Pressure drop

U3 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. TAC**

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21) (See Comments 9 and 10.)
- ii. The owner or operator shall not allow formaldehyde emissions from the following emission points to exceed: (Regulation 5.21, section 4.7)
 - 1) 225 pounds per consecutive 12-month period from BLDG4; and
 - 2) 1,309.4 pounds per consecutive 12-month period from E15.
- iii. The owner or operator shall maintain a minimum stack height of 50 feet for the K6 Reactor vent. (Regulation 5.21, section 4.7)

b. VOC

- i. For equipment subject to Regulation 6.24:
 - 1) Class II Solvents - No owner or operator shall discharge into the atmosphere more than 40 pounds of organic materials in any one day, or more than 8 pounds in any one hour, from any existing affected facility in which any Class II solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.2)
 - 2) Class III Solvents - No owner or operator shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day, or more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.3)
- ii. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- iii. See Source-Wide Specific Conditions S1.

c. **Opacity**

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 6.09, Section 3.1.)

d. **PM**

i. The owner or operator shall not allow PM emissions to exceed 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.2) (See Comment 3.)

ii. The owner or operator shall utilize the control device at all times the process is in operation and solids charging is taking place; and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03) (See Comment 3.)

iii. See Source-Wide Specific Conditions S1.

e. **HAP**

i. See Source-Wide Specific Conditions S1.

ii. The owner or operator shall comply with the standards as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)

f. **TAP** (Regulation 5.11 & 5.12, Section 1)

i. For equipment subject to Regulation 5.11:

1) Emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) are limited to the ASL rates based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw material changes shall be submitted to the District for review and approval.

2) The owner or operator shall not exceed the following emission limits: (See Comment 6.)

<u>Pollutant</u>	<u>Emission Rate</u>
Acrylic acid	11.57 lb/hr
Phosphoric acid	0.38 lb/hr

- 3) The owner or operator shall limit the hourly charging rate for trimellitic anhydride to less than or equal to 852 lb/hr averaged over an 8 hour period.
- ii. For equipment subject to Regulation 5.12, the owner or operator shall not allow or cause the emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 from U3 (E15-a) to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.
- g. **NOx**

The owner or operator shall not allow NOx emissions to exceed 300 ppm by volume expressed as NO₂. (Regulation 6.09, Section 4.1.) (See Comment 4.)

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **TAC**

- i. The owner or operator shall maintain records of each TAC contained in all materials used onsite.
- ii. To assure continued compliance with the emission limits specified in [S1.a.ii.](#), the owner or operator shall calculate and record the 12-consecutive month formaldehyde emissions from BLDG4 and E15.
- iii. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results. (See Comment 9.)
- iv. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

b. **VOC**

The owner or operator shall maintain the following records:

- i. The number of gallons of each batch manufactured for each operating day;
- ii. The batch formulation including the name and weight percent of each VOC;
- iii. The number of operating hours for each operating day;

- iv. The hourly and daily VOC emissions for Class II and III solvents subject to Regulation 6.24. (Regulation 1.05, Section 4.1.2) (See Comment 11.)
- v. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month.
- vi. See Source-Wide Specific Conditions S2.

c. **Opacity**

There are no routine monitoring or record keeping requirements. (See Comment 12.)

d. **PM**

The owner or operator shall maintain the following records:

- i. Monthly records of the type and amount of products transferred.
- ii. Daily records of the hours of operation.
- iii. Monthly calculation of the PM emissions on a average hourly basis from the records required by S2.d.i, and S2.d.ii.
- iv. Monthly records of a visual inspection of the structural and mechanical integrity of the scrubber for signs of damage, air leakage, corrosion, etc., including repair, as needed.
- v. For any time that the control device is not in operation when the process is operating:
 - 1) Date;
 - 2) Start and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions (lb/hr);
 - 5) Summary of the cause or reason;
 - 6) Corrective action taken to minimize the extent or duration; and
 - 7) Measures implemented to prevent reoccurrence of the situation.
- vi. The pressure drop across venturi scrubber C12 once each operating day to ensure the pressure drop is between 3 and 8 inches water column.
- vii. See Source-Wide Specific Conditions S2.

e. **HAP**

- i. The owner or operator shall comply with the monitoring and record keeping as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
- ii. See Source-Wide Specific Conditions S2.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

f. **TAP**

- i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain daily records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from all equipment subject to Regulation 5.11 *plant-wide*.
 - 4) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.
 - 5) Monthly calculate and record the average hourly emissions of acrylic acid, phosphoric acid and trimellitic anhydride.
- ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain daily records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from U3 (E15-a).
 - 4) Monthly calculate and record the average hourly TAP emissions for each TAP from U3 (E15-a).

- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAP-containing material used at this plant.

g. **NO_x**

There are no monitoring or record keeping requirements for this pollutant. (See Comment 4.)

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

a. **TAC**

- i. Within 6 months of a change of a raw material as described in S2.a.iv., the owner or operator shall submit the re-evaluated EA demonstration to the District.
- ii. The owner or operator shall report the consecutive 12-month formaldehyde emissions for each calendar month in the reporting period.

b. **VOC**

- i. For equipment subject to Regulation 6.24:
 - 1) Identification of all periods of exceedances of the hourly and daily VOC emission limit, including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if no excess emissions occurred.
- ii. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.
- iii. See Source-Wide Specific Conditions S3.

c. **Opacity**

There are no routine reporting requirements. (See Comment 12.)

d. **PM**

- i. For PM:

- 1) Identification of all periods of exceedances of the hourly PM emission limit, including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if there were no excess emissions.
- ii. For control device C12 pressure drop:
- 1) Summary information on the number, duration and cause of all excursions; and
 - 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.
- iii. For periods of time when a process was operating and the control device was not operating:
- 1) Start and stop time; and
 - 2) Calculated quantity (tons) of PM emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
- iv. See Source-Wide Specific Conditions S3.
- e. **HAP**
- i. The owner or operator shall comply with the reporting as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
 - ii. See Source-Wide Specific Conditions S3.
- f. **TAP**
- i. Identification of all periods of exceedances of the emission limits; and
 - ii. Description of any corrective action taken; or
 - iii. A negative declaration if there were no exceedances.
- g. **NO_x**

There are no reporting requirements for this pollutant.

U3 Comments

1. The E12-E14, E31-E32, and E51 are not subject to the non-reactor batch process vent standards in 40 CFR 63.1407 (Subpart OOO) due to emitting less than 0.25 tons per year of uncontrolled organic HAP emissions according to 40 CFR 63.1407(a)(1).

2. The Notification of Compliance Status was submitted on June 20, 2003 in accordance with 40 CFR 63 Subpart OOO (§1417(e)).
3. The District performed a one-time compliance demonstration for EP E15 for PM on 11/28/07 and the standard cannot be exceeded controlled.
4. The District performed a one-time compliance demonstration for EP E15 for NOx on 11/28/07 and the standard cannot be exceeded uncontrolled.
5. EP E15-a was included in permit 49-08-C, which incorporated permit 376-03-C. The remaining emission points in Emission Unit U3 were included in permit 48-08-C. The control device was included in permit 72-08-C.
6. These pollutants were modeled and the plant-wide allowable emission limits were calculated using the equation in Section 4.6 of “Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations”, 4/87.
7. Emission Unit U3, E15, utilizes a reflux condenser which is considered a recovery device as defined in 40 CFR 63.1402 (Subpart OOO).
8. The packed tower separator system is defined as a recovery device as defined in 40 CFR 63.1402. Therefore, there are no monitoring, record keeping, or reporting requirements from 40 CFR 63 Subpart OOO.
9. The STAR Category 1 TAC EA Demonstration was received on December 22, 2006 and subsequent requested information was submitted on June 19, 2007 and October 17, 2008. The STAR Category 2 TAC EA Demonstration was received on April 2, 2008.
10. Based on Tier 4 ISC3 refined air modeling for formaldehyde, the carcinogenic risk for each Category 1 TAC is below 1.0 for non-industrial property and 10.0 for industrial property utilizing the reflux condenser on the K6 reactor at the vent height of 50 feet as specified in S1.a.i. and ii. The stack height was raised to 50 feet in November 2006. The carcinogenic risk for all Category 1 TACs for all processes is below 7.5 for non-industrial property and 75.0 for industrial property. The emissions of all other Category 1 TACs are de minimis.

TAC	Risk from All Processes on Non-Industrial Property	Risk from All Processes on Industrial Property
Formaldehyde	0.52	1.13
Total	0.52	1.13

11. The emissions’ calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA’s Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial

software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.

12. The District has determined that, due to a history of no visible emissions, periodic visible emissions surveys are no longer required for U3.

Emission Unit U4: Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer

U4 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>1.05</u>	Compliance with Emission Standards and Maintenance Requirements	1, 4 and 5
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>6.24</u>	Standards of Performance for Existing Sources Using Organic Materials	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4 and 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U4 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E16	One (1) 200 gallon K8/K9 catalyst tank, TK-81, 1996	5.12, 7.25	NA
E17	One (1) 2,500 gallon K8 weigh tank, TK-80, 1980		
E18	One (1) 5,500 gallon K8 reactor, RX-08, with reflux condenser C6, 1973	5.11, 6.09, 6.24	C12
E19	One (1) 10,000 gallon K8/K9 catch tank, KO-80, 1996	5.12, 7.25	NA

Permit No: 120-97-TV (R2)

Plant ID: 0185

U4 Control Devices

ID	Stack ID	Description	Performance Indicator
C12	S-26/33	Venturi Scrubber	Pressure drop

U4 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)a. **HAP**

See Source-Wide Specific Conditions S1.

b. **PM**

i. The owner or operator shall not allow PM emissions to exceed 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.2)

ii. The owner or operator shall utilize control device C12 at all times the process is in operation and solids charging is taking place; and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)

iii. See Source-Wide Specific Conditions S1.

c. **Opacity**

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 6.09, Section 3.1)

d. **VOC**

i. For equipment subject to Regulation 6.24:

1) Class II Solvents - No owner or operator shall discharge into the atmosphere more than 40 pounds of organic materials in any one day, or more than 8 pounds in any one hour, from any existing affected facility in which any Class II solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.2)

2) Class III Solvents - No owner or operator shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day, or more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.3)

- ii. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- iii. See Source-Wide Specific Conditions S1.
- e. **TAP** (Regulations 5.11 & 5.12, Section 1)
 - i. For equipment subject to Regulation 5.11:
 - 1) Emissions of TAPs not applicable in Regulation 5.21 (Category 1 and 2 TAC) are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw material changes shall be submitted to the District for review and approval.
 - 2) The owner or operator shall not exceed the following emission limits: (See Comment 1.)

<u>Pollutant</u>	<u>Emission Rate</u>
Acrylic acid	11.57 lb/hr
Phosphoric acid	0.38 lb/hr
 - ii. For equipment subject to Regulation 5.12, the owner or operator shall not allow or cause the emissions of TAPs not regulated by Regulation 5.21 from U4 (E16 and E19) and U6 (E26) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.

f. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **HAP**

- i. See Source-Wide Specific Conditions S2.

- ii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

b. **PM**

The owner or operator shall maintain the following records:

- i. Monthly records of the type and amount of products transferred.
- ii. Daily records of the hours of operation.
- iii. Monthly calculation of the PM emissions on a average hourly basis from the records required by [S2.b.i.](#) and [S2.b.ii.](#)
- iv. Monthly records of a visual inspection of the structural and mechanical integrity of the scrubber for signs of damage, air leakage, corrosion, etc., including repair, as needed.
- v. For any time that the control device is not in operation when the process is operating:
 - 1) Date;
 - 2) Start and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions (lb/hr);
 - 5) Summary of the cause or reason;
 - 6) Corrective action taken to minimize the extent or duration; and
 - 7) Measures implemented to prevent reoccurrence of the situation.
- vi. The pressure drop across venturi scrubber C12 once each operating day to ensure the pressure drop is between 3 and 8 inches water column.
- vii. See Source-Wide Specific Conditions S2.

c. **Opacity**

There are no routine monitoring or record keeping requirements. (See Comment 4.)

d. **VOC**

The owner or operator shall maintain the following records:

- i. The number of gallons of each batch manufactured for each operating day;

- ii. The batch formulation including the name and weight percent of each VOC;
 - iii. The number of operating hours for each operating day;
 - iv. The hourly and daily VOC emissions for Class II and III solvents subject to Regulation 6.24. (Regulation 1.05, Section 4.1.2) (See Comment 2.)
 - v. For equipment subject to Regulation 7.25, monthly calculate and record the plant-wide monthly and consecutive 12-month VOC emissions for each calendar month.
 - vi. See Source-Wide Specific Conditions S2.
- e. **TAP**
- i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain daily records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
 - 4) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.
 - 5) Monthly calculate and record the average hourly emissions of acrylic acid, ammonia and phosphoric acid.
 - ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain daily records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from U4 (E16 and E19) and U6 (E26) combined.

- 4) Monthly calculate and record the average hourly TAP emissions for each TAP from U4 (E16 and E19) and U6 (E26) combined.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAP-containing material used at this plant.

f. **TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
- ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following information:

a. **HAP**

See Source-Wide Specific Conditions S3.

b. **PM**

- i. For PM:
 - 1) Identification of all periods of exceedances of the hourly PM emission limit, including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if there were no excess emissions.
- ii. For control device C12 pressure drop:
 - 1) Summary information on the number, duration and cause of all excursions; and
 - 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.

- iii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and
 - 2) Calculated quantity (tons) of PM emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
- iv. See Source-Wide Specific Conditions S3.

c. **Opacity**

There are no routine reporting requirements. (See Comment 4.)

d. **VOC**

- i. For equipment subject to Regulation 6.24:
 - 1) Identification of all periods of exceedances of the hourly and daily VOC emission limit, including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if no excess emissions occurred.
- ii. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.
- iii. See Source-Wide Specific Conditions S3.

e. **TAP**

- i. Identification of all periods of exceedances of the emission limits; and
- ii. Description of any corrective action taken; or
- iii. A negative declaration if there were no exceedances.

f. **TAC**

Within 6 months of a change of a raw material as described in S2.f.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

U4 Comments

1. These pollutants were modeled and the plant-wide allowable emission limits were calculated using the equation in Section 4.6 of "Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations", 4/87.

2. The emissions' calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
3. The process units of Emission Unit U4 were included in permit 51-08-C. The control devices of Emission Unit U4 were included in permit 72-08-C.
4. The District has determined that, due to a history of no visible emissions, periodic visible emissions surveys are no longer required for U4.

Emission Unit U5: Resin Production Facility for Synthetic Resins including Acrylic, Alkyd, Polyester, and Copolymer

U5 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>1.05</u>	Compliance with Emission Standards and Maintenance Requirements	1, 4 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2 and 3
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 5
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U5 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E20	One (1) 1,500 gallon K9 weigh tank, TK-90, 1980	5.11, 7.08, 7.25	NA
E21	One (1) 2,230 gallon heated weigh tank, TK-91, 1980	5.11, 7.08, 7.25	
E23	One (1) 3,000 gallon K9 reactor, RX-09, with reflux condenser C7, 1993	5.12, 7.08, 7.25	C8/C12

U5 Control Devices

ID	P/PE	Stack ID	Description	Performance Indicator
C8	73-08	S-21	Condenser	Outlet gas stream temperature
C12	72-08	S-33	Venturi Scrubber	Pressure drop

U5 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. PM**

- i. For equipment subject to Regulation 7.08, the owner or operator shall not allow PM emissions to exceed 4.12 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.1.2)
- ii. The owner or operator shall utilize control device C12 at all times the process is in operation and solids charging is taking place; and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iii. See Source-Wide Specific Conditions S1.

b. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, Section 3.1.1)

c. VOC

- i. The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Sections 2.1 and 3.1)
- ii. The owner or operator shall utilize control device C8 at all times the process is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iii. See Source-Wide Specific Conditions S1.

d. TAP (Regulations 5.11 and 5.12)

- i. For equipment subject to Regulation 5.11, TAP emissions are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the

District. Any raw material changes shall be submitted to the District for review and approval.

ii. For equipment subject to Regulation 5.12:

- 1) The owner or operator shall not allow or cause TAP emissions from E23 to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.
- 2) The owner or operator shall not exceed the following emission limits: (See Comment 1.)

<u>Pollutant</u>	<u>Emission Rate</u>
Acrylamide	0.08 lb/hr
Phthalic anhydride	1.57 lb/hr
Trimelletic anhydride	0.04 lb/hr

e. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

f. **HAP**

See Source-Wide Specific Conditions S1.

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **PM**

The owner or operator shall maintain the following records:

- i. Monthly records of the type and amount of products transferred.
- ii. Daily records of the hours of operation.
- iii. Monthly calculation of the PM emissions on a average hourly basis from the records required by S2.a.i. and S2.a.ii.
- iv. Monthly records of a visual inspection of the structural and mechanical integrity of the scrubber for signs of damage, air leakage, corrosion, etc., including repair, as needed.

- v. For any time that the control device is not in operation when the process is operating:
 - 1) Date;
 - 2) Start and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions (lb/hr);
 - 5) Summary of the cause or reason;
 - 6) Corrective action taken to minimize the extent or duration; and
 - 7) Measures implemented to prevent reoccurrence of the situation.
- vi. The pressure drop across venturi scrubber C12 once each operating day to ensure the pressure drop is between 3 and 8 inches water column.
- vii. See Source-Wide Specific Conditions S2.

b. **Opacity**

There are no routine monitoring or record keeping requirements. (See Comment 4.)

c. **VOC**

The owner or operator shall maintain the following records:

- i. The number of gallons of each batch manufactured for each operating day;
- ii. The batch formulation including the name and weight percent of each VOC;
- iii. The number of operating hours for each operating day;
- iv. The identification of all periods when control device C8 was not operating or bypassing occurred.
- v. The outlet gas stream temperature from condenser C8 once each operating day to ensure the temperature is less than or equal to 130°F.
- vi. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month. (Regulation 1.05, Section 4.1.2) (See Comment 2.)
- vi. See Source-Wide Specific Conditions S2.

d. TAP

- i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain daily records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
 - 4) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.
- ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from E23.
 - 4) Monthly calculate and record the average hourly TAP emissions for each TAP from E23.
 - 5) Monthly calculate and record the average hourly emissions of acrylamide, ethyl acrylate, phthalic anhydride and trimellitic anhydride.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAP-containing material used at this plant.

e. TAC

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

- ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

f. **HAP**

- i. See Source-Wide Specific Conditions S2.
- ii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

a. **PM**

- i. For PM:
 - 1) Identification of all periods of exceedances of the hourly PM emission limit, including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if there were no excess emissions.
- ii. For control device C12 pressure drop:
 - 1) Summary information on the number, duration and cause of all excursions; and
 - 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.
- iii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and
 - 2) Calculated quantity (tons) of PM emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
- iii. See Source-Wide Specific Conditions S3.

b. **Opacity**

There are no routine reporting requirements. (See Comment 4.)

c. **VOC**

i. For control device C8:

- 1) Summary information on the number, duration and cause of all excursions; and
- 2) Description of the corrective action taken; or
- 3) A negative declaration if there were no excursions during the reporting period.

ii. For periods of time when a process was operating and the control device was not operating:

- 1) Start and stop time; and
- 2) Calculated quantity (tons) of VOC emitted; or
- 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.

iii. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.

iv. See Source-Wide Specific Conditions S3.

d. **TAP**

- i. Identification of all periods of exceedances of the emission limits; and
- ii. Description of any corrective action taken; or
- iii. A negative declaration if there were no exceedances.

e. **TAC**

Within 6 months of a change of a raw material as described in S2.e.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

f. **HAP**

See Source-Wide Specific Conditions S3.

U5 Comments

1. These pollutants were modeled and the plant-wide allowable emission limits were calculated using the equation in Section 4.6 of "Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations", 4/87.

2. The emissions' calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
3. Emission Unit U5 was included in permit 52-08-C.
4. The District has determined that, due to a history of no visible emissions, periodic visible emissions surveys are no longer required for U5.

Emission Unit U6: Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer

U6 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>1.05</u>	Compliance with Emission Standards and Maintenance Requirements	1, 4 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2 and 3
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 5
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U6 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E24	One (1) 1,200 gallon K10 weigh tank, TK-10, 1980	5.11, 7.08, 7.25	NA
E25	One (1) 1,600 gallon K10 reactor, RX-10, with reflux condenser C9, 1995	5.12, 7.08, 7.25	C10/C11/C12
E26	One (1) 1,600 gallon K10 catch tank, KO-10, 1996	5.12, 7.25	NA

U6 Control Devices

ID	Stack ID	Description	Performance Indicator
C10	S-31	Secondary Condenser	Outlet gas stream temperature
C11	S-31	Tertiary Condenser	Outlet gas stream temperature
C12	S-33	Venturi Scrubber	Pressure drop

U6 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. PM**

- i. For equipment subject to Regulation 7.08, the owner or operator shall not allow PM emissions to exceed 4.12 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.1.2)
- ii. The owner or operator shall utilize control device C12 at all times the process is in operation and solids charging is taking place; and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iii. See Source-Wide Specific Conditions S1.

b. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, Section 3.1.1)

c. VOC

- i. The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- ii. The owner or operator shall utilize control devices C10 and C11 at all times the process is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iii. See Source-Wide Specific Conditions S1.

d. TAP (Regulations 5.11, Section 1 and 5.12, Section 1)

- i. For equipment subject to Regulation 5.11, TAP emissions are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the

District. Any raw material changes shall be submitted to the District for review and approval.

ii. For equipment subject to Regulation 5.12:

- 1) The owner or operator shall not allow or cause TAP emissions from U4 (E16 and E19) and U6 (E26) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.
- 2) The owner or operator shall not allow or cause TAP emissions from U6 (E25) and U9 (E52) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.
- 3) The owner or operator shall not exceed the following emission limits: (See Comment 1.)

<u>Pollutant</u>	<u>Emission Rate</u>
Acrylamide	0.08 lbs/hr
Phthalic anhydride	1.57 lbs/hr
Trimelletic anhydride	0.04 lb/hr

e. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

f. **HAP**

See Source-Wide Specific Conditions S1.

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **PM**

The owner or operator shall maintain the following records:

- i. Monthly records of the type and amount of products transferred.
- ii. Daily records of the hours of operation.
- iii. Monthly calculation of the PM emissions on a average hourly basis from the records required by S2.a.i. and S2.a.ii.

- iv. Monthly records of a visual inspection of the structural and mechanical integrity of the scrubber for signs of damage, air leakage, corrosion, etc., including repair, as needed.
- v. For any time that the control device is not in operation when the process is operating:
 - 1) Date;
 - 2) Start and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions (lb/hr);
 - 5) Summary of the cause or reason;
 - 6) Corrective action taken to minimize the extent or duration; and
 - 7) Measures implemented to prevent reoccurrence of the situation.
- vi. The pressure drop across venturi scrubber C12 once each operating day to ensure the pressure drop is between 3 and 8 inches water column.
- vii. See Source-Wide Specific Conditions S2.

b. Opacity

There are no routine monitoring or record keeping requirements. (See Comment 4.)

c. VOC

The owner or operator shall maintain the following records:

- i. The number of gallons of each batch manufactured for each operating day;
- ii. The batch formulation including the name and weight percent of each VOC;
- iii. The number of operating hours for each operating day; and
- iv. The identification of all periods when control devices C10 and C11 were not operating or bypassing occurred; and
- v. The outlet gas stream temperature from condensers C10 and C11 once each operating day to ensure the temperature is less than or equal to 130°F.

vi. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month. (Regulation 1.05, Section 4.1.2) (See Comment 2.)

vi. See Source-Wide Specific Conditions S2.

d. **TAP**

i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:

- 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
- 2) Maintain records of the batch processing time for each batch of resin produced.
- 3) Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
- 4) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.

ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:

- 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
- 2) Maintain records of the batch processing time for each batch of resin produced.
- 3) Monthly calculate and record the ASL based on a weighted height of release from U4 (E16 and E19) and U6 (E26) combined.
- 4) Monthly calculate and record the average hourly TAP emissions for each TAP from U4 (E16 and E19) and U6 (E26) combined.
- 5) Monthly calculate and record the ASL based on a weighted height of release from U6 (E25) and U9 (E52) combined.
- 6) Monthly calculate and record the average hourly TAP emissions for each TAP from U6 (E25) and U9 (E52) combined.

- 3) A negative declaration if there were no excursions during the reporting period.
- iii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and
 - 2) Calculated quantity (tons) of PM emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
- iv. See Source-Wide Specific Conditions S3.
- b. **Opacity**

There are no routine reporting requirements. (See Comment 4.)
- c. **VOC**
 - i. For control devices C10 and C11:
 - 1) Summary information on the number, duration and cause of all excursions; and
 - 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.
 - ii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and
 - 2) Calculated quantity (tons) of VOC emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
 - iii. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.
 - iv. See Source-Wide Specific Conditions S3.
- d. **TAP**
 - i. Identification of all periods of exceedances of the emission limits; and
 - ii. Description of any corrective action taken; or
 - iii. A negative declaration if there were no exceedances.

e. **TAC**

Within 6 months of a change of a raw material as described in S2.e.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

f. **HAP**

See Source-Wide Specific Conditions S3.

U6 Comments

1. These pollutants were modeled and the allowable emission limits were calculated using the equation in Section 4.6 of “Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations”, 4/87.
2. The emissions’ calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA’s Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
3. The process units of Emission Unit U6 were included in permit 53-08-C. Control devices C10 and C11 were included in permit 62-08-C. Control device C12 was included in permit 72-08-C.
4. The District has determined that, due to a history of no visible emissions, periodic visible emissions surveys are no longer required for U6.

Emission Unit U7: Thindown Tanks**U7 Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>1.05</u>	Compliance with Emission Standards and Maintenance Requirements	1, 4 and 5
<u>6.24</u>	Standards of Performance for Existing Sources Using Organic Materials	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>40 CFR 63 Subpart A</u>	General Provisions	63.1 through 63.15
<u>40 CFR 63 Subpart OOO</u>	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins	63.1400, 63.1401, 63.1402, 63.1403, 63.1406, 63.1410, 63.1413, 63.1414, 63.1415, 63.1416, 63.1417

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4 and 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U7 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E83 - E85	Three (3) Thindown tanks, TT-01, TT-02 & TT-03, 8,000 gallons each, 1988	5.12, 7.25	C24-C26
E86 - E88	Three (3) Thindown tanks, TT-04, TT-05 & TT-06, 8,500 gallons each, 1988	5.11, 6.24	C27-C29
E31 - E33	Three (3) Thindown tanks, TT-07, TT-08 & TT-09, 5,076 gallons each, 1966	5.11, 6.24, 40 CFR 63 Subpart OOO	C13-C15
E34	One (1) 5,076 gallon Thindown tank, TT-10, 1966	5.11, 6.24	C16
E35 - E36	Two (2) Thindown tanks, TT-11 & TT-12, 10,486 gallons each, 1966	5.11, 6.24	C17 - C18
E172	One (1) 8,500 gallon Thindown tank, TT-13, 1988	5.12, 7.25	C22
E173	One (1) 8,000 gallon Thindown tank, TT-14, 1988	5.12, 7.25	C23

U7 Control Devices

ID	P/PE	Stack ID	Description	Performance Indicator
C13-C18, C22-C29	76-08	S40-45, S116-117, S66-71	Fourteen (14) Shell-and-Tube Condensers	Outlet gas stream temperature

U7 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. HAP**

- i. See Source-Wide Specific Conditions S1.
- ii. The owner or operator shall comply with the standards as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)

b. VOC

- i. For equipment subject to Regulation 6.24:
 - 1) Class II Solvents - No owner or operator shall discharge into the atmosphere more than 40 pounds of organic materials in any one day, or more than 8 pounds in any one hour, from any existing affected facility in which any Class II solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.2)
 - 2) Class III Solvents - No owner or operator shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day, or more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.3)
- ii. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- iii. The owner or operator shall utilize the control devices C13 - C18 and C22 - C29 at all times the process is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iv. See Source-Wide Specific Conditions S1.

c. TAP (Regulations 5.11, Section 1 and 5.12, Section 1)

- i. For equipment subject to Regulation 5.11, emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) are limited to the ASL value based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw material changes shall be submitted to the District for review and approval.
- ii. For equipment subject to Regulation 5.12, the owner or operator shall not allow or cause emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) from U7 (E83 - E88 and E172 - E173), U8 (E176 - E200) and U17 (E201) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.

d. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **HAP**

- i. The owner or operator shall comply with the monitoring and recordkeeping as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
- ii. See Source-Wide Specific Conditions S2.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

b. **VOC**

The owner or operator shall maintain the following records:

- i. The number of gallons of each batch manufactured for each operating day;
- ii. The batch formulation including the name and weight percent of each VOC;
- iii. The number of operating hours for each operating day;

- iv. The hourly and daily VOC emissions for Class II and III solvents subject to Regulation 6.24. (Regulation 1.05, Section 4.1.2) (See Comment 3.)
- v. The identification of all periods when any control device was not operating or bypassing occurred; and
- vi. The outlet gas stream temperature from condensers C13 - C18 and C22 - C29 once each operating day to ensure the temperature from each is less than or equal to 130°F.
- vii. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month.
- viii. See Source-Wide Specific Conditions S2.

c. **TAP**

- i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
 - 4) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.
- ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
 - 1) Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - 2) Maintain daily records of the batch processing time for each batch of resin produced.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from U7 (E83 - E88 and E172 - E173), U8 (E176 - E200) and U17 (E201) combined.

- 4) Monthly calculate and record the average hourly TAP emissions for each TAP not regulated by 40 CFR 63 Subpart OOO from U7 (E83 - E88 and E172 - E173), U8 (E176 - E200) and U17 (E201) combined.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAP-containing material used at this plant.
- d. **TAC**
 - i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
 - ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

S3. Reporting (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

- a. **HAP**
 - i. The owner or operator shall comply with the reporting as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
 - ii. See Source-Wide Specific Conditions S3.
- b. **VOC**
 - i. For equipment subject to Regulation 6.24:
 - 1) Identification of all periods of exceedances of the hourly and daily VOC emission limit including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken.
 - 4) A negative declaration if no excess emissions occurred.
 - ii. For control devices C13 - C18 and C22 - C29:
 - 1) Summary information on the number, duration and cause of all excursions; and

- 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.
- iii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and
 - 2) Calculated quantity (tons) of VOC emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
 - iv. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.
 - v. See Source-Wide Specific Conditions S3.
- c. **TAP**
- i. Identification of all periods of exceedances of the emission limits; and
 - ii. Description of any corrective action taken; or
 - iii. A negative declaration if there were no exceedances.
- d. **TAC**

Within 6 months of a change of a raw material as described in S2.d.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

U7 Comments

1. E12-E14, E31-E32, and E51 are not subject to the non-reactor batch process vent standards in 40 CFR 63.1407 (Subpart OOO) due to emitting less than 0.25 tons per year of uncontrolled organic HAP emissions according to 40 CFR 63.1407(a)(1).
2. The Notification of Compliance Status was submitted on June 20, 2003 in accordance with 40 CFR 63 Subpart OOO (§1417(e)).
3. The emissions' calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
4. Emission Unit U7 was included in permit 54-08-C.

Emission Unit U8: Bulk Storage Tanks**U8 Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>6.13</u>	Standards of Performance for Existing Storage Vessels for Volatile Organic Compounds	1, 2, and 3.3
40 CFR 60 Subpart Kb	Standards of Performance for VOL Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	60.110b, 60.111b and 60.116b (a) & (b)
<u>7.12</u>	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3.3
<u>40 CFR 63 Subpart A</u>	General Provisions	63.1 through 63.14
<u>40 CFR 63 Subpart OOO</u>	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins	63.1400, 63.1401, 63.1402, 63.1403, 63.1406, 63.1410, 63.1413, 63.1414, 63.1415, 63.1416, 63.1417
<u>40 CFR 68 Subpart G</u>	Chemical Accident Prevention Provisions	68.150, 68.151, 68.152, 68.155, 68.160, 68.165, 68.168, 68.170, 68.175, 68.180, 68.185, 68.1.90, 68.195

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4, 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New Sources Emitting Toxic Air Pollutants	1 through 5
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.15</u>	Chemical Accident Prevention Provisions	1
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6
<u>7.02</u>	Federal New Source Performance Standards Incorporated By Reference	3.23

U8 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E176-E194	Nineteen (19) storage tanks, ST-01 - ST-19, 7,800 gallons each, 1998	5.12, 7.12	NA
E195-E200	Six (6) storage tanks, ST-20 - ST-25, 7,800 gallons each, 1998	5.12, 7.12, 40 CFR 63 Subpart OOO	
E220	One (1) 15,000 gallon storage tank, HW-01, 1980	5.11, 6.13	
E163-E168	Six (6) storage tanks, RT-106 - RT-111, 5,890 gallons each, 1974	5.11, 6.13	
E230-E231	Two (2) storage tanks, BT-01 & BT-02, 2,611 gallons each, 1950	5.11, 6.13	
E215	One (1) 5,200 gallon storage tank, BT-04, 1950	5.11, 6.13	
E216	One (1) 6,372 gallon storage tank, BT-05, 1950	5.11, 6.13	
E40-E41	Two (2) storage tanks, BT-A and BT-B, 4,200 gallons each, 1950	5.11, 6.13	
E43	One (1) 2,573 gallon storage tank, BT-D, 1950	5.11, 6.13	
E44-E46	Three (3) storage tanks, BT-E, BT-F & BT-G, 2,573 gallons each, 1974	5.11, 6.13	
E48	One (1) 5,100 gallon storage tank, BT-I, 1974	5.11, 6.13	
E47, E49	Two (2) storage tanks, RM-H & RM-J, 5,100 gallons each, 1950	5.11, 6.13	
E94	One (1) 6,100 gallon storage tank, RM-K, 1950	5.11, 6.13	
E92-E93	Two (2) storage tanks, RM-Y & RM-Z, 10,230 gallons each, 1950	5.11, 6.13	
E58	One (1) 25,900 gallon storage tank, RM-01, 1980	5.11, 6.13	
E202-E203	Two (2) storage tanks, RM-03 & RM-04, 25,900 gallons each, 1980	5.11, 6.13	

Emission Point	Description	Applicable Regulation(s)	Control ID
E95-E97	Three (3) storage tanks, RM-06, RM-07 & RM-08, 10,000 gallons each, 1966	5.11, 6.13	NA
E98	One (1) 4,572 gallon storage tank, RM-9, 1966	5.11, 6.13	
E90-E91	Two (2) storage tanks, RM-10 & RM-11, 4,966 gallons each, 1950	5.11, 6.13	
E99	One (1) 8,000 gallon storage tank, RM-12, 1971	5.11, 6.13	
E121-E122	Two (2) storage tanks, RM-14 & RM-13, 30,455 gallons each, 1966	5.11, 6.13	
E118-E120	Three (3) storage tanks, RM-17, RM-16 & RM-15, 23,500 gallons each, 1972	5.11, 6.13	
E123-E124	Two (2) storage tanks, RM-18 - RM-19, 9,400 gallons each, 1974	5.11, 6.13	
E100-E101	Two (2) storage tanks, RM-20 - RM-21, 10,000 gallons each, 1946	5.11, 6.13	
E102-E117	Sixteen (16) storage tanks, RM-22 - RM-37, 10,000 gallons each, 1941	5.11, 6.13	
E217-E219	Three (3) raw material storage tanks, RM-38, RM-39 & RM-40, 15,000, 11,000 and 11,000 gallons, respectively, 2000	5.12, 7.12, 40 CFR 60 Subpart Kb	
E11	One (1) 15,300 gallon formaldehyde (UF-85) storage tank, RM-41, 1989	5.01, 5.12, 5.15, 5.21, 5.23, 7.12, 40 CFR 63 Subpart OOO, 40 CFR 68	Vapor Balance System
E249	One (1) 12,230 gallon storage tank, RM-42, 1999	5.12, 7.12, 40 CFR 60 Subpart Kb	NA
E250	One (1) 7,420 gallon storage tank, RM-44, 1980	5.11, 6.13	
E244-E245	Two (2) storage tanks, WW-05 & WW-06, 20,238 gallons each, 1980	5.11, 6.13	

U8 Control Devices: E11 utilizes a vapor balance system to control the emissions of formaldehyde. All other emission points are uncontrolled.

U8 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. HAP**

- i. See Source-Wide Specific Conditions S1.
- ii. The owner or operator shall comply with the standards as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)

b. VOC (Regulations 6.13, Section 3.3 and 7.12, Section 3.3)

- i. If the true vapor pressure of the volatile organic compound, as stored, is equal to or greater than 1.5 psia, as a minimum it shall be equipped with a permanent submerged fill pipe. True vapor pressure “as stored” shall be determined on an instantaneous basis under conditions representing expected worst case conditions. (See Comment 4.)
- ii. See Source-Wide Specific Conditions S1.

c. TAP (Regulations 5.11, Section 1 and 5.12, Section 1)

- i. For equipment subject to Regulation 5.11:
 - 1) Emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw material changes shall be submitted to the District for review and approval.
 - 2) The owner or operator shall not allow ethyl benzene emissions to exceed 85.89 lb/hr. (See Comment 3.)
- ii. For equipment subject to Regulation 5.12:
 - 1) Emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) from U7 (E83 - E88, E172 - E173), U8 (E176 - E200) and U17 (E201) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.
 - 2) For E217-E219, emissions of TAPs are limited to the ASL values calculated with a stack height of thirty-three (33) feet for RM-38 (styrene), twenty-nine (29) feet for RM-39 (methyl methacrylate),

twenty-nine (29) feet for RM-40 (vinyl toluene), unless modeling or a BACT analysis has been submitted and approved by the District.

- 3) For E217-E219, the owner or operator shall not exceed the following emission limits:

<u>Tank #/Product</u>	<u>Emission Rate</u>
Tank RM-38 (styrene)	11.19 lb/hr
Tank RM-39 (methyl methacrylate)	16.63 lb/hr
Tank RM-40 (vinyl toluene)	9.737 lb/hr

d. **TAC**

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)
- ii. From E11, the owner or operator shall not allow formaldehyde emissions to exceed 109.1 pounds per consecutive 12-month period. (Regulation 5.21, Section 4.7)
- iii. The owner or operator shall utilize a vapor balance system at all times to return formaldehyde vapors to the tank truck that are displaced from E11 when loading formaldehyde solution.

e. **District Regulation 5.15 Regulated Substance** (40 CFR Part 68 Subpart G)

For E11, the owner or operator shall comply with the Risk Management Plan for Regulation 5.15, which has been submitted to the District and to the U.S. EPA. (See Off-Permit Documents for the plan date.)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **HAP**

- i. The owner or operator shall comply with the monitoring and recordkeeping as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
- ii. See Source-Wide Specific Conditions S2.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

b. VOC

- i. The owner or operator shall maintain a record of monthly maintenance inspections of the conservation vents and tank lids to ensure proper operation.
- ii. The owner or operator shall maintain the records showing the dimensions and an analysis showing the capacity of the storage vessels, as required by 60.116b(b) of Subpart Kb. E217-E219 and E249 are not subject to any other provisions of Subpart Kb. These records shall be kept for the life of the storage tanks.
- iii. See Source-Wide Specific Conditions S2.

c. TAP

- i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:
 - 1) Maintain records of the throughput of each storage tank.
 - 2) Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
 - 3) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11, using the most recent EPA-approved TANKS program.
 - 4) Monthly calculate the average hourly emissions of ethyl benzene.
- ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
 - 1) Maintain records of the throughput of each storage tank.
 - 2) Monthly calculate and record the ASL based on a weighted height of release from U7 (E83 - E88, E172 and E173), U8 (E176 - E200) and U17 (E201) combined.
 - 3) Monthly calculate and record the average hourly TAP emissions not regulated by 40 CFR 63 Subpart OOO for each TAP from U7 (E83 - E88, E172 and E173), U8 (E176 - E200) and U17 (E201) combined, using the most recent EPA-approved TANKS program.

- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAP-containing material used at this plant.

d. **TAC**

- i. The owner or operator shall maintain records of each TAC contained in all materials used onsite.
- ii. To assure continued compliance with the emission limits specified in [S1.e.ii.](#), the owner or operator shall calculate and record the consecutive 12-month formaldehyde emissions from E11.
- iii. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results. (See Comment [5.](#))
- iv. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

a. **HAP**

- i. The owner or operator shall comply with the reporting as specified in 40 CFR 63 Subpart OOO. (See [Appendix A](#) for Specific Conditions.)
- ii. See [Source-Wide Specific Conditions S3.](#)

b. **VOC**

- i. An identification of all inspections not performed according to [S2.b.i.](#), or
- ii. A negative declaration, if no inspections were missed.
- iii. See [Source-Wide Specific Conditions S3.](#)

c. **TAP**

- i. Identification of all periods of exceedances of the emission limits; and
- ii. Description of any corrective action taken; or
- iii. A negative declaration if there were no exceedances.

d. **TAC**

- i. Within 6 months of a change of a raw material as described in S2.d.iv., the owner or operator shall submit the re-evaluated EA demonstration to the District.
- ii. The owner or operator shall report the consecutive 12-month formaldehyde emissions for each calendar month in the reporting period.

U8 Comments

1. E12-E14, E31-E32, and E51 are not subject to the non-reactor batch process vent standards in 40 CFR 63.1407 (Subpart OOO) due to emitting less than 0.25 tons per year of uncontrolled organic HAP emissions according to 40 CFR 63.1407(a)(1).
2. The Notification of Compliance Status was submitted on June 20, 2003 in accordance with 40 CFR 63 Subpart OOO (§1417(e)).
3. These pollutants were modeled and the plant-wide allowable emission limits were calculated using the equation in Section 4.6 of "Guidance to Demonstration of Compliance with TAP Regulations", 4/87.
4. For the storage vessels subject to Regulation 6.13, the regulation applies due to the size of the tanks, but since the vapor pressure as stored is less than 1.5 psia, there are no applicable standards in the regulation.
5. The STAR Category 1 TAC EA Demonstration was received on December 22, 2006 and subsequent requested information was submitted on June 19, 2007 and October 17, 2008. The STAR Category 2 TAC EA Demonstration was received on April 2, 2008.
6. Emission Unit U8 was included in permits 55-08-C, 59-08-C and 60-08-C. Permit 60-08-C incorporates permit 84-01-C.
7. EP E248 (Permit 61-08-C), a 3,000 gallon storage tank for reclaimed solvent, was not installed. Permit 61-08-C incorporated permit 29-08-C.

Emission Unit U9: Resin Filtering**U9 Applicable Regulations:**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>6.24</u>	Standards of Performance for Existing Sources Using Organic Materials	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 & 5.2
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2
<u>40 CFR 63 Subpart A</u>	General Provisions	63.1 through 63.15
<u>40 CFR 63 Subpart OOO</u>	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins	63.1400, 63.1401, 63.1402, 63.1403, 63.1406, 63.1410, 63.1413, 63.1414, 63.1415, 63.1416, 63.1417

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.02</u>	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1, 3.1, 3.54, 4, 5
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.12</u>	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U9 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E50	One (1) Filter press #2, 1953	5.11, 6.24	NA
E51	One (1) Filter press #6, 1967	5.11, 6.24, 40 CFR 63 Subpart OOO	
E52	One (1) Filter press #7, 1996	5.12, 7.25	

U9 Control Devices: There are no control devices associated with emission Unit U9.

U9 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. HAP**

- i. See Source-Wide Specific Conditions S1.
- ii. The owner or operator shall comply with the standards as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)

b. VOC

- i. For equipment subject to Regulation 6.24:
 - 1) Class II Solvents - No owner or operator shall discharge into the atmosphere more than 40 pounds of organic materials in any one day, or more than 8 pounds in any one hour, from any existing affected facility in which any Class II solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.2)
 - 2) Class III Solvents - No owner or operator shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day, or more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent is used unless said discharge has been reduced by at least 85% by weight. (Regulation 6.24, Section 3.3)
- ii. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- iii. See Source-Wide Specific Conditions S1.

c. TAP (Regulations 5.11, Section 1 and 5.12, Section 1)

- i. For equipment subject to Regulation 5.11, emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw

material changes shall be submitted to the District for review and approval.

- ii. For equipment subject to Regulation 5.12, the owner or operator shall not allow or cause emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or applicable in Regulation 5.21 (Category 1 and 2 TAC) from U6 (E25) and U9 (E52) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.

d. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **HAP**

- i. The owner or operator shall comply with the monitoring and recordkeeping as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
- ii. See Source-Wide Specific Conditions S2.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

b. **VOC**

The owner or operator shall maintain the following records:

- i. The number of gallons and weight percent VOC of each batch processed by each filter press;
- ii. The number of operating hours for each operating day for each filter press;
- iii. The hourly and daily VOC emissions for Class II and III solvents subject to Regulation 6.24. (Regulation 1.05, Section 4.1.2) (See Comment 3.)
- iv. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month.
- v. See Source-Wide Specific Conditions S2.

c. TAP

- i. To demonstrate ongoing compliance with Regulation 5.11, the owner or operator shall:
 - 1) Monthly record the number of gallons and weight percent TAP for each batch processed by each filter press.
 - 2) Daily record the number of operating hours for each operating day for each filter press.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
 - 4) Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.
- ii. To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
 - 1) Monthly record the number of gallons and weight percent TAP of each batch processed by each filter press;
 - 2) Daily record the number of operating hours for each operating day for each filter press.
 - 3) Monthly calculate and record the ASL based on a weighted height of release from U6 (E25) and U9 (E52) combined.
 - 4) Monthly calculate and record the average hourly TAP emissions for each TAP from U6 (E25) and U9 (E52) combined.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAP-containing material used at this plant.

d. TAC

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
- ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

S3. Reporting (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

a. HAP

- i. The owner or operator shall comply with the reporting as specified in 40 CFR 63 Subpart OOO. (See Appendix A for Specific Conditions.)
- ii. See Source-Wide Specific Conditions S3.

b. VOC

- i. For equipment subject to Regulation 6.24:
 - 1) Identification of all periods of exceedances of the hourly and daily VOC emission limit including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if no excess emissions occurred.
- ii. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.
- iii. See Source-Wide Specific Conditions S3.

c. TAP

- i. Identification of all periods of exceedances of the emission limits; and
- ii. Description of any corrective action taken; or
- iii. A negative declaration if there were no exceedances.

d. TAC

Within 6 months of a change of a raw material as described in S2.d.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

U9 Comments

1. E12-E14, E31-E32, and E51 are not subject to the non-reactor batch process vent standards in 40 CFR 63.1407 (Subpart OOO) due to emitting less than 0.25 tons per year of uncontrolled organic HAP emissions according to 40 CFR 63.1407(a)(1).

2. The Notification of Compliance Status was submitted on June 20, 2003 in accordance with 40 CFR 63 Subpart OOO (§1417(e)).
3. The emissions' calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
4. Emission Unit U9 was included in permit 56-08-C.

Emission Unit U10: Bulk Loading Facility for Loading Various Resin Products and Organic Compounds into Tank Trucks

U10 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>6.22</u>	Standards of Performance for Existing Volatile Organic Materials Loading Facilities	1, 2, 3.1 & 3.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U10 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E53	One (1) Bulk Volatile Organic Materials Loading Facility, 1975	5.01, 5.11, 5.14, 5.21, 5.23, 6.22	NA

U10 Control Devices: There are no control devices associated with emission Unit U10.

U10 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)a. **VOC** (Regulation 6.22, Section 3.1)

- i. No owner or operator of any loading facility from which more than 200 gallons but less than 20,000 gallons of volatile organic materials are loaded in any one day shall load any volatile organic materials into any tank, truck, trailer, or railroad car from any loading facility unless such loading is accomplished by submerge fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal.
- ii. The total volatile organic material throughput shall not exceed 20,000 gallons for each operating day.
- iii. See Source-Wide Specific Conditions S1.

b. **TAP** (Regulation 5.11, Section 1)

- i. TAP emissions are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw material changes shall be submitted to the District for review and approval.
- ii. The owner or operator shall not allow n-butyl alcohol emissions to exceed 32.75 lb/hr. (See Comment 1.)

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

d. **HAP**

See Source-Wide Specific Conditions S1.

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the following records:

a. **VOC**

- i. Daily records of the total volatile organic materials throughput for each operating day.
- ii. Records that demonstrate daily compliance using the following calculation methodology: (Regulation 1.05, Section 4.1.2)

$$F_L = 12.46 \frac{SPM}{T}$$

where: F_L = Filling loss (lbs per 1000 gallons liquid filled)

M = Molecular weight of vapors

P = Vapor pressure of liquid

T = Temperature of bulk liquid loaded

S = Saturation factor

- iii. See Source-Wide Specific Conditions S2.

b. **TAP**

- i. Daily records of the total material throughput for each operating day.
- ii. Daily records of the hours of operation of the equipment.
- iii. Monthly calculate and record the ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
- iv. Monthly calculate and record the average hourly TAP emissions *plant-wide* from all equipment subject to Regulation 5.11.
- v. Monthly calculate and record the average hourly emissions of n-Butyl alcohol, toluene and xylene.

c. **TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
- ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

d. **HAP**

- i. See Source-Wide Specific Conditions S2.
- ii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following information:

a. **VOC**

- i. Identification of all periods of exceedance of the throughput limit; and
- ii. Description of any corrective action taken; or
- iii. A negative declaration if no exceedances occurred.
- iv. See Source-Wide Specific Conditions S3.

b. **TAP**

- i. Identification of all periods of exceedances; and
- ii. Description of any corrective action taken; or
- iii. A negative declaration if there were no exceedances.

c. **TAC**

Within 6 months of a change of a raw material as described in S2.c.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

d. **HAP**

See Source-Wide Specific Conditions S3.

U10 Comments

1. These pollutants were modeled and the plant-wide allowable emission limits were calculated using the equation in Section 4.6 of "Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations", 4/87.
2. Emission Unit U10 was included in permit 57-08-C.

Emission Unit U14: Building 3, Mix & Blend Resin Facility (Formerly PD2 Building Coating Manufacturing)

U14 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>6.09</u>	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2 and 3
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.11</u>	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U14 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E133, E135	Two (2) Tanks, L1 & L3, 2,172 gallons each, 1974	5.11, 7.25	NA
E137, E139, E141	Three (3) Tanks, L5, L7, L9, 2,287 gallons each, 1974	5.11, 7.25	NA
E143	One (1) 4,272 gallon mixing tank, M11, 1974	5.11, 7.08, 7.25	C20
E146	One (1) 4,678 gallon mixing tank, M15, 1985		
E147	One (1) 4,678 gallon mixing tank, M16, 1974		
E150, E151	Two (2) mixing tanks, M1-A & M1-B (D-1 & D-2), 1,304 gallons each, 1974	5.11, 6.09, 7.25	C21
E152, E153	Two (2) mixing tanks, M3-A & M3-B, 667 gallons each, 1974	5.11, 7.08, 7.25	
E154	One (1) 1,300 gallon mixing tank, M-2, 1979	5.11, 7.08, 7.25	

U14 Control Devices

ID	Stack ID	Description	Performance Indicator
C20	S-109	Fabric Filter	Pressure drop
C21	S-110	Fabric Filter	Pressure drop

U14 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. PM**

- i. For equipment subject to Regulation 7.08, the owner or operator shall not allow PM emissions to exceed 4.12 lb/hr for each piece of equipment. (Regulation 7.08, Section 3.1.2)
- ii. For equipment subject to Regulation 6.09, the owner or operator shall not allow PM emissions to exceed 2.58 lb/hr for each piece of equipment. (Regulation 6.09, Section 3.2)
- iii. The owner or operator shall utilize the control device at all times the process is in operation and solids charging is taking place; and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iv. See Source-Wide Specific Conditions S1.

b. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, Section 3.1.1)

c. VOC

- i. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- ii. See Source-Wide Specific Conditions S1.

d. HAP

See Source-Wide Specific Conditions S1.

e. **TAP** (Regulation 5.11, Section 1)

- i. TAP emissions are limited to the ASL values based on a weighted height of release *plant-wide*, unless modeling or a RACT analysis has been submitted and approved by the District. Any raw material changes shall be submitted to the District for review and approval.
- ii. The owner or operator shall not exceed the following emission limits: (See Comment 1.)

<u>Pollutant</u>	<u>Emission Rate</u>
Barium	0.03 lb/hr
Titanium dioxide	0.33 lb/hr

f. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **PM**

The owner or operator shall maintain the following records:

- i. Monthly records of the type and amount of products transferred.
- ii. Daily records of the hours of operation.
- iii. Monthly calculation of the PM emissions on a average hourly basis from the records required by S2.a.i. and S2.a.ii.
- iv. Monthly records of a visual inspection of the structural and mechanical integrity of the baghouses for signs of damage, air leakage, corrosion, etc., including repair, as needed.
- v. For any time that the control device is not in operation when the process is operating:
 - 1) Date;
 - 2) Start and stop time;
 - 3) Identification of the control device and process equipment;

- 4) PM emissions (lb/hr);
- 5) Summary of the cause or reason;
- 6) Corrective action taken to minimize the extent or duration; and
- 7) Measures implemented to prevent reoccurrence of the situation.

vi. The pressure drop across baghouses C20 and C21 each operating day to ensure the pressure drop is between 1 and 5 inches water column.

vii. See Source-Wide Specific Conditions S2.

b. Opacity

There are no routine monitoring or record keeping requirements. (See Comment 2.)

c. VOC

The owner or operator shall maintain the following records:

- i. The number of gallons of each batch manufactured for each operating day;
- ii. The batch formulation including the name and weight percent of each VOC;
- iii. The number of operating hours for each operating day;
- iv. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month.
- v. See Source-Wide Specific Conditions S2.

d. HAP

- i. See Source-Wide Specific Conditions S2.
- ii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

e. TAP

The owner or operator shall monthly calculate and record the following:

- i. The ASL based on a weighted height of release from all the equipment subject to Regulation 5.11 *plant-wide*.
 - ii. The average hourly emissions of formaldehyde, barium and titanium dioxide.
- f. **TAC**
- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
 - ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

- a. **PM**
 - i. For PM:
 - 1) Identification of all periods of exceedances of the hourly PM emission limits, including the quantity of excess emissions;
 - 2) Reason for excess emissions; and
 - 3) Description of any corrective action taken; or
 - 4) A negative declaration if there were no excess emissions.
 - ii. For pressure drop of control devices C20 and C21:
 - 1) Summary information on the number, duration and cause of all excursions; and
 - 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.
 - iii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and

- 2) Calculated quantity (tons) of PM emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
- iv. See Source-Wide Specific Conditions S3.
- b. **Opacity**
- There are no routine reporting requirements. (See Comment 2.)
- c. **VOC**
- i. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month total VOC emissions for each calendar month.
 - ii. See Source-Wide Specific Conditions S3.
- d. **HAP**
- See Source-Wide Specific Conditions S3.
- e. **TAP**
- i. Identification of all periods of exceedances of the emission limits; and
 - ii. Description of any corrective action taken; or
 - iii. A negative declaration if there were no exceedances.
- f. **TAC**
- Within 6 months of a change of a raw material as described in S2.f.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

U14 Comments

1. These pollutants were modeled and the plant-wide allowable emission limits were calculated using the equation in Section 4.6 of “Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations”, 4/87.
2. The District has determined that, due to a history of no visible emissions, periodic visible emissions surveys are no longer required for U14.
3. The process units of Emission Unit U14 were included in permit 165-08-C. The control devices of Emission Unit U14 were included in permit 166-08-C.

Emission Unit U15: Natural Gas Fired Boilers

U15 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>7.06</u>	Standards of Performance for New Indirect Heat Exchangers	1, 2, 3, 4.1.3, 4.2, 5.1.1 and 8

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U15 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E170-E171	Two (2) Kewanee boilers, 10.46 MMBtu/hr each, 1973	7.06	NA
E22	One (1) 4.0 MMBtu/hr hot oil heater HT-01, 1993		
E247	One (1) 4.0 MMBtu/hr hot oil heater HT-02, 1995		
E251	One (1) 1.4 MMBtu/hr hot oil heater HT-03, 1985		

U15 Control Devices: There are no control devices associated with emission unit U15.

U15 Specific Conditions

S1. Standards (Regulation 2.16, Section 4.1.1)

a. **SO₂** (Regulation 7.06, Section 5.1.1)

The owner or operator shall not cause to be discharged into the atmosphere sulfur dioxide in excess of 1.0 pounds per million BTU actual total heat input for combustion of liquid and gaseous fuels. (See Comment 1.)

b. **PM**

i. The owner or operator shall not exceed the following PM limits. (Regulation 7.06, Section 4.1.4) (See Comment 1.)

EP	PM Limit (lb/MMBtu actual total heat input)
E170-E171	0.43
E22	0.30
E247	0.28
E251	0.26

ii. See Source-Wide Specific Conditions S1.

c. **Opacity** (Regulations 7.06, Section 4.2)

The owner or operator shall not cause the emission into the open air of particulate matter from any indirect heat exchanger which is greater than 20% opacity.

f. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21) (See Comment 2.)

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **SO₂**

There are no monitoring or record keeping requirements. (See Comment 1.)

b. **PM**

See Source-Wide Specific Conditions S2.

c. **Opacity**

There are no monitoring or record keeping requirements. (See Comment 3.)

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)a. **SO₂**

There are no routine reporting requirements. (See Comment 1.)

b. **PM**

See Source-Wide Specific Conditions S3.

c. **Opacity**

There are no routine reporting requirements.

U15 Comments

1. The District has performed one-time PM and SO₂ compliance demonstration for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to PM and SO₂ emission limits.
2. The TAC emissions from the combustion of natural gas are considered to be “de minimis emissions” by the District. (Regulation 5.01, Section 1.6.7)
3. The District has determined that no periodic visible emissions surveys are required for these small natural gas fired boilers.
4. The District has determined that the 400 gallon hot oil expansion tank associated with the hot oil system of HT-02 does not require a permit at this time.
5. The Reliance Boiler, EP E169, was removed from service.
4. EP E170 and E171 were included in permit 63-08-C. EP E22 was included in permit 52-08-C. EP E247 was included in permit 50-08-C.

Emission Unit U17: Drum Filling Station for Loading Various Resin Products and Organic Compounds into Drums

U17 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1 through 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.12</u>	Standards of Performance for New Sources Emitting Toxic Air Pollutants	1 through 6
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U17 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E201	One (1) Drum Filling Station, 1998	5.01, 5.21, 5.23, 7.25	NA

U17 Control Devices: There are no control devices associated with emission unit U17.

U17 Specific Conditions

S1. **Standards** (Regulation 2.16, Section 4.1.1)

a. **VOC**

- i. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per year, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Sections 2.1 and 3.1)
- ii. See Source-Wide Specific Conditions S1.

b. **TAP** (Regulation 5.12, Section 1)

- i. The owner or operator shall not allow or cause emissions of TAPs not regulated by 40 CFR 63 Subpart OOO or Regulation 5.21 from U7 (E83 - E88, E172 and E173), U8 (E176 - E200) and U17 (E201) combined to exceed the ASL value, unless modeling or a BACT analysis has been submitted and approved by the District.
- ii. The owner or operator shall not exceed the following emission limits: (See Comment 1.)

<u>Pollutant</u>	<u>Emission Rate</u>
Acrylic acid	11.57 lb/hr
Phosphoric acid	0.38 lb/hr
n-Butyl alcohol	32.75 lb/hr

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

d. **HAP**

See Source-Wide Specific Conditions S1.

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)**a. VOC**

The owner or operator shall maintain the following records:

- i. The formulation and throughput for each product processed in this emission unit each month.
- ii. The monthly VOC emissions as determined using the following calculation methodology: (Regulation 1.05, Section 4.1.2)

$$F_L = 12.46 \frac{SPM}{T}$$

where: F_L = Filling loss (lbs per 1000 gallons liquid filled)

M = Molecular weight of vapors

P = Vapor pressure of liquid

T = Temperature of bulk liquid loaded

S = Saturation factor

- iii. For equipment subject to Regulation 7.25, monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions for each calendar month, utilizing the calculation methodology in S2.a.ii.
- iv. See Source-Wide Specific Conditions S2.

b. TAP

To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:

- i. Monitor and record the formulation and monthly throughput for each product processed in this emission unit.
- ii. Daily record the hours of operation of the equipment.
- iii. Monthly calculate and record the ASL based on a weighted height of release from U7 (E83 - E88, E172 and E173), U8 (E176 - E200) and U17 (E201) combined.
- iv. Monthly calculate and record the average hourly TAP emissions for each TAP from U7 (E83 - E88, E172 and E173), U8 (E176 - E200) and U17 (E201) combined.

- v. Monthly calculate and record the average hourly emissions of n-Butyl alcohol, toluene and xylene.
- c. **TAC**
 - i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
 - ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.
- d. **HAP**
 - i. See Source-Wide Specific Conditions S2.
 - ii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following information:

- a. **VOC**
 - i. The *plant-wide* monthly and consecutive 12-month total VOC emissions subject to Regulation 7.25 for each calendar month.
 - ii. See Source-Wide Specific Conditions S3.
- b. **TAP**
 - i. Identification of all periods of exceedances of the emission limits; and
 - ii. Description of any corrective action taken; or
 - iii. A negative declaration if there were no exceedances.
- c. **TAC**

The owner or operator shall submit notification to, and receive approval by, the District for any change in operations that would increase the emissions of a TAC

above de minimis levels that were not identified in an EA demonstration submitted to the District.

d. **HAP**

See Source-Wide Specific Conditions S3.

U17 Comments

1. These pollutants were modeled and the plant-wide allowable District Only Enforceable emission limits were calculated using the equation in Section 4.6 of “Guidance to Demonstration of Compliance with Toxic Air Pollutant Regulations”, 4/87.
2. Emission Unit U17 was included in permit 65-08-C.

Emission Unit U18: Sag Control Agents**U18 Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>1.05</u>	Compliance with Emission Standards and Maintenance Requirements	1, 4 and 5
<u>7.08</u>	Standards of Performance for New Process Operations	1, 2 and 3
<u>7.25</u>	Standards of Performance for New Sources Using Volatile Organic Compounds	1 through 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
<u>5.01</u>	General Provisions	1 through 4
<u>5.12</u>	Standards of Performance for New Sources Emitting Toxic Air Pollutants	1 through 5
<u>5.14</u>	Hazardous Air Pollutants and Source Categories	1 and 2
<u>5.21</u>	Environmental Acceptability for Toxic Air Contaminants	1 through 5
<u>5.23</u>	Categories of Toxic Air Contaminants	1 through 6

U18 Components

Emission Point	Description	Applicable Regulation(s)	Control ID
E205	One (1) 1,000 gallon K12 reactor, RX-12, 2001	5.01, 5.12, 5.21, 5.23, 7.08, 7.25	C29
E206-E208	Three (3) K12 Weigh Tanks 1-3, WT-121, WT-122 & WT-123, 160 gallons each, 2001	5.01, 5.12, 5.21, 5.23, 7.25	NA
E209	One (1) 110 gallon K12 Weigh Tank 4, WT-124, 2001	5.12, 7.25	NA

U18 Control Devices

ID	Stack ID	Description	Performance Indicator
C29	S-26/33	Shell-and-Tube Condenser (See Comment <u>1</u> .)	Temperature

U18 Specific Conditions**S1. Standards** (Regulation 2.16, Section 4.1.1)**a. PM**

- i. The owner or operator shall not allow PM emissions to exceed 3.0 lb/hr. (Regulation 7.08, Section 3.1.2)
- ii. See Source-Wide Specific Conditions S1.

b. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, Section 3.1.1)

c. VOC

- i. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Sections 2.1 and 3.1) (See Comment 1.)
- ii. The owner or operator shall utilize control device C29 at all times the process is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03)
- iii. See Source-Wide Specific Conditions S1.

d. TAP (Regulation 5.12, Section 1)

- i. TAP emissions are limited to the ASL values calculated with a stack height of twenty-two (22) feet for E205, twelve (12) feet for each E206-E209, and one hundred sixty-eight (168) hours of operation, unless modeling or a BACT analysis has been submitted and approved by the District.
- ii. The owner or operator shall not allow ethyl benzene emissions to exceed 6.882 lb/hr.

e. **TAC**

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21) (See Comment 3.)
- ii. The owner or operator shall not allow 1,6-hexamethylene diisocyanate emissions from the following emission points to exceed: (Regulation 5.21, section 4.7) (See Comment 4.)
 - 1) 44.3 pounds per consecutive 12-month period from E205; and
 - 2) 459.0 pounds per consecutive 12-month period from E208.

f. **HAP**

See Source-Wide Specific Conditions S1.

S2. Monitoring and Record Keeping (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **PM**

- i. The owner or operator shall maintain the following daily records:
 - 1) The pounds yielded on each batch manufactured for each operating day;
 - 2) The batch formulation including the weight percent of all solids; and
 - 3) The batch cycle time for each batch.
- ii. The owner or operator shall monthly calculate the average hourly PM emissions information contained in S2.a.i.
- iii. See Source-Wide Specific Conditions S2.

b. **Opacity**

There are no monitoring or record keeping requirements. (See Comment 2.)

c. **VOC**

- i. The owner or operator shall maintain the following records:

- 1) The pounds yielded on each batch manufactured for each operating day;
 - 2) The batch formulation including the name and weight percent of each VOC; and
 - 3) The batch cycle time for each batch.
- ii. For equipment subject to Regulation 7.25, the owner or operator shall monthly calculate and record the *plant-wide* monthly and consecutive 12-month VOC emissions utilizing the information contained in [S2.c.i.](#) (See Comment 5.)
 - iii. The owner or operator shall monitor and record all periods when control device C29 was not operating or bypassing occurred.
 - iv. The owner or operator shall daily monitor and record the outlet gas stream temperature from condenser C29 once each operating day to ensure the temperature is less than or equal to 130°F.
 - v. See [Source-Wide Specific Conditions S2](#).
- d. **TAP**
- To demonstrate ongoing compliance with Regulation 5.12, the owner or operator shall:
- i. Maintain records of the formulation for each batch of resin produced, including the name and weight percent of each TAP.
 - ii. Maintain records of the batch processing time for each batch of resin produced.
 - iii. Monthly calculate and record the ASL and average hourly TAP emissions.
- e. **TAC**
- i. The owner or operator shall maintain records of each TAC contained in all materials used onsite.
 - ii. To assure continued compliance with the emission limits specified in [S1.e.ii.](#), the owner or operator shall calculate and record the 12-consecutive month 1,6-hexamethylene diisocyanate emissions from E205 and E208.

- iii. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results. (See Comment 3.)
- iv. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

f. **HAP**

- i. See Source-Wide Specific Conditions S2.
- ii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP-containing material used at this plant.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

Semi-annual compliance monitoring reports shall include Emission Unit ID numbers, Control ID numbers, and the starting date and ending date of the reporting period. The owner or operator shall include, at a minimum, the following additional information:

a. **PM**

- i. Identification of all periods of exceedances of the hourly PM emission limit, including the quantity of excess emissions;
- ii. Reason for excess emissions; and
- iii. Description of any corrective action taken; or
- iv. A negative declaration if there were no excess emissions.
- v. See Source-Wide Specific Conditions S3.

b. **Opacity**

There are no routine reporting requirements. (See Comment 2.)

c. **VOC**

- i. For control device C29:
 - 1) Summary information on the number, duration and cause of all excursions; and
 - 2) Description of the corrective action taken; or
 - 3) A negative declaration if there were no excursions during the reporting period.

- ii. For periods of time when a process was operating and the control device was not operating:
 - 1) Start and stop time; and
 - 2) Calculated quantity (tons) of VOC emitted; or
 - 3) A negative declaration if the control device was operating at all times the process was operating during the reporting period.
 - iii. For equipment subject to Regulation 7.25, the plant-wide monthly and consecutive 12-month VOC emissions for each calendar month.
 - iv. See Source-Wide Specific Conditions S3.
- d. **TAP**
- i. Identification of all periods of exceedances of the emission limits; and
 - ii. Description of any corrective action taken; or
 - iii. A negative declaration if there were no exceedances.
- e. **TAC**
- i. The owner or operator shall submit notification to, and receive approval by, the District for the following: (See Comment 3.)
 - 1) Any change in operations that would increase the emissions of a TAC above de minimis levels that were not identified in an EA demonstration submitted to the District; or
 - 2) Any change in the air dispersion modeling input parameters from that identified in an EA demonstration submitted to the District.
 - ii. The owner or operator shall report the consecutive 12-month 1,6-hexamethylene diisocyanate emissions for each calendar month in the reporting period.
- f. **HAP**
- See Source-Wide Specific Conditions S3.

U18 Comments

- 1. The reactor is controlled by a shell-and-tube condenser, which the District has determined meets the BACT requirements of Regulation 7.25.

2. The District has determined that, due to a history of no visible emissions, periodic visible emissions surveys are no longer required for U18.
3. The STAR Category 1 TAC EA Demonstration was received on December 22, 2006 and subsequent requested information was submitted on June 19, 2007 and October 17, 2008. The STAR Category 2 TAC EA Demonstration was received on April 2, 2008.
4. Based on Tier 4 ISC3 refined air modeling for 1,6-hexamethylene diisocyanate, the non-carcinogenic risk for each individual and all applicable Category 2 TACs is 0.072, which is below the regulatory allowable risk of 1.0. The emissions of all other Category 2 TACs are de minimis.
5. The emissions' calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.) are based on USEPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes a commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
6. Emission Unit U18 was included in permit 66-08-C.

Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, Section 4.6.1. The following NSPS rules have been reviewed by the District and determined not to be applicable to the emissions units and/or emission points listed.

40 CFR Part 60, Subpart Dc

Standards of Performance for Industrial-Commercial - Institutional Steam Generating Units. Emission Unit U15 was installed prior to June 1989.

40 CFR Part 60, Subpart Kb

Standards of Performance for Volatile Organic Liquid Storage Vessels. E62-66, E117-122 were installed prior to July 1984.

Off-Permit Documents

<u>Document</u>	<u>Date</u>
112(r) Risk Management Plan	June 1999
Rule Effectiveness Plan (Reg. 1.18)	September 1994

Alternative Operating Scenarios

The owner or operator did not request to operate under any alternative operating scenarios in its Title V permit application.

Source-wide HAP Speciation

HAP	CAS No.	HAP	CAS No.
Acrylamide	79-06-1	Methyl Isobutyl Ketone	108-10-1
Acrylic acid	79-10-7	Methyl Methacrylate	80-62-6
Cumene	98-82-8	Naphthalene	91-20-3
Ethyl benzene	100-41-4	Phenol	108-95-2
Ethylene glycol	107-21-1	Phthalic Anhydride	85-44-9
Formaldehyde	50-00-0	Styrene	100-42-5
Hydroquinone	123-31-9	Toluene	108-88-3
Maleic Anhydride	108-31-6	Xylene	1330-20-7
Methanol	167-56-1		

Note: HAPs cited in the table above are those currently known to be used at this source and are included for informational purposes only.

Compliance Assurance Monitoring

Nuplex Resin, LLC is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources* since the company has accepted synthetic minor source limits for all regulated air pollutants for which the company is a major source.

Insignificant Activities

Equipment	Quantity	Basis of Exemption
Brazing, Soldering or Welding Equipment	1	Regulation 2.02, Section 2.3.4
Storage Tanks for Fuel or Lubricating Oils with V.P. < 10 mm HG of 20°C	7	Regulation 2.02, Section 2.3.9.2
Lab Ventilating & Exhausting Systems, Non-Radioactive Materials	2	Regulation 2.02, Section 2.3.11
Cold solvent parts cleaners (for glass parts) with secondary reservoirs (EU21-a, P/PE 70-08)	3	Regulation 2.02, Section 2.3.22
Research & Development (R&D) Activities, potential emissions less than 5 tons per year (U16, Reactor K11) ¹	1	Regulation 2.02, Section 2.3.27

¹ The source has determined that U16, Reactor K11, is designated as a research and development facility. If the source plans to utilize U16 for future production activities, a permit application shall be submitted to the District.

- a. Insignificant activities identified in District Regulation 2.02 Section 2, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.
- b. Insignificant activities identified in District Regulation 2.02 Section 2 shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.
- c. EU21-a, P/PE 70-08, and U16, Reactor K11, are subject to Regulation 7.25. For equipment subject to Regulation 7.25, the owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this plant to equal or exceed 25 tons during any calendar year and 2.50 tons per month, unless modeling or a BACT is submitted and approved by the District. (Regulation 7.25, Section 2.1 and 3.1)
- d. The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that EU21-a, P/PE 70-08, and U16, Reactor K11, are subject to the following monitoring, record keeping, or reporting requirements, to demonstrate compliance with Regulation 7.25:
 - i. The owner or operator shall monthly calculate and record the plant-wide total monthly and consecutive 12-month total VOC emissions for each calendar month.
 - ii. The owner or operator shall report the *plant-wide* total monthly and consecutive 12-month total VOC emissions for each calendar month.
- e. The Insignificant Activities table is correct as of the date the permit was proposed for review by the USEPA, Region 4. The company shall submit an updated list of insignificant activities annually with the Title V Compliance Certification pursuant to Regulation 2.16, Section 4.3.5.3.6.

Appendix A**40 CFR 63 Subpart OOO (MACT) Specific Conditions****S1. Standards** (Regulation 2.16, Section 4.1.1)**a. HAP (Non-LDAR)** (40 CFR 63.1406(a)(2)(iii))

For reactor batch process vents E15 and E18, the owner or operator shall reduce organic HAP emissions from the collection of all reactor batch process vents within the affected source, as a whole, to 0.0567 kilogram of organic HAP per megagram of product or less for solvent-based resin production.

b. HAP (LDAR) (40 CFR 63 Subpart OOO)

- i. For valves in light liquid or vapor service, the instrument reading that defines a leak is 500 parts per million or greater. (40 CFR 63.1025(b)(2) as referenced by 40 CFR 63.1410)
- ii. For pumps in light liquid service, the instrument reading that defines a leak is specified in [S1.b.ii.1](#) through [S1.b.ii.2](#). (40 CFR 63.1026(b)(2) as referenced by 40 CFR 63.1410)
 - 1) 5,000 parts per million or greater for pumps handling polymerizing monomers; (40 CFR 63.1026(b)(2)(i) as referenced by 40 CFR 63.1410)
 - 2) 1,000 parts per million or greater for all other pumps. (40 CFR 63.1026(b)(2)(iii) as referenced by 40 CFR 63.1410)
 - 3) For pumps to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected. (40 CFR 63.1026(b)(3) as referenced by 40 CFR 63.1410)
- iii. For connectors in gas/vapor and light liquid service, if an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected. (40 CFR 63.1027(b)(2) as referenced by 40 CFR 63.1410)
- iv. For agitators in gas/vapor and light liquid service, if an instrument reading equivalent of 10,000 parts per million or greater is measured, a leak is detected. (40 CFR 63.1028(c)(2) as referenced by 40 CFR 63.1410)

- v. Equipment subject to 40 CFR 63 Subpart UU shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods. (40 CFR 63.1022(a) as referenced by 40 CFR 63.1410)

- vi. Additional equipment identification. In addition to the general identification required by [S1.b.v.](#), equipment subject to any of the provisions in 40 CFR 63.1023 through 63.1034 shall be specifically identified as required in [S1.b.vi.1\)](#) through [S1.b.vi.5\)](#), as applicable. This paragraph does not apply to an owner or operator of a batch product process who elects to pressure test the batch product process equipment train pursuant to 40 CFR 63.1036. (40 CFR 63.1022(b) as referenced by 40 CFR 63.1410)
 - 1) Connectors. Except for inaccessible, ceramic, or ceramic-lined connectors meeting the provision of 40 CFR 63.1027(e)(2) and instrumentation systems identified pursuant to [S1.b.vi.4\)](#), identify the connectors subject to the requirements of 40 CFR 63 Subpart UU. Connectors need not be individually identified if all connectors in a, area or length of pipe subject to the provisions of 40 CFR 63 Subpart UU are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the identification shall be complete no later than the completion of the initial survey required by [S1.b.v.](#) (40 CFR 63.1022(b)(1) as referenced by 40 CFR 63.1410)

 - 2) Routed to a process or fuel gas system or equipped with a closed vent system and control device. Identify the equipment that the owner or operator elects to route to a process or fuel gas system or equip with a closed vent system and control device, under the provisions of 40 CFR 63.1026(e)(3) (pumps in light liquid service), 40 CFR 63.1028(e)(3) (agitators), 40 CFR 63.1030(d) (pressure relief devices in gas and vapor service), 40 CFR 63.1031(e) (compressors), or 40 CFR 63.1037(a) (alternative means of emission limitation for enclosed-vented process units). (40 CFR 63.1022(b)(2) as referenced by 40 CFR 63.1410)

 - 3) Pressure relief devices. Identify the pressure relief devices equipped with rupture disks, under the provisions of 40 CFR 63.1030(e). (40 CFR 63.1022(b)(3) as referenced by 40 CFR 63.1410)

- 4) Instrumentation systems. Identify instrumentation systems subject to the provisions of 40 CFR 63.1029. Individual components in an instrumentation system need not be identified. (40 CFR 63.1022(b)(4) as referenced by 40 CFR 63.1410)
 - 5) Equipment in service less than 300 hours per calendar year. The identity, either by list, location (area or group), or other method, of equipment in regulated material service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of 40 CFR 63 Subpart UU shall be recorded. (40 CFR 63.1022(b)(5) as referenced by 40 CFR 63.1410)
- vii. Special equipment designations: Equipment that is unsafe or difficult-to-monitor. (40 CFR 63.1022(c) as referenced by 40 CFR 63.1410)
- 1) Designation and criteria for unsafe-to-monitor. Valves meeting the provisions of 40 CFR 63.1025(e)(1), pumps meeting the provisions of 40 CFR 63.1026(e)(6), connectors meeting the provisions of 40 CFR 63.1027(e)(1), and agitators meeting the provisions of 40 CFR 63.1028(e)(7) may be, unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of 40 CFR 63 Subpart UU. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat. (40 CFR 63.1022(c)(1) as referenced by 40 CFR 63.1410)
 - 2) Designation and criteria for difficult-to-monitor. Valves meeting the provisions of 40 CFR 63.1025(e)(2) may be, difficult-to-monitor if the provisions of S1.b.vii.2A) apply. Agitators meeting the provisions of 40 CFR 63.1028(e)(5) may be, difficult-to-monitor if the provisions of S1.b.vii.2B) apply. (40 CFR 63.1022(c)(2) as referenced by 40 CFR 63.1410)
 - A) Valves. (40 CFR 63.1022(c)(2)(i) as referenced by 40 CFR 63.1410)
 - (i) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service; and (40 CFR 63.1022(c)(2)(i)(A) as referenced by 40 CFR 63.1410)

- (ii) The process unit or affected facility within which the valve is located is an existing source, or the owner or operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor. (40 CFR 63.1022(c)(2)(i)(B) as referenced by 40 CFR 63.1410)
 - B) Agitators. The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service. (40 CFR 63.1022(c)(2)(ii) as referenced by 40 CFR 63.1410)
- 3) Identification of unsafe or difficult-to-monitor equipment. The owner or operator shall record the identity of equipment, unsafe-to-monitor according to the provisions of [S1.b.vii.1](#)) and the planned schedule for monitoring this equipment. The owner or operator shall record the identity of equipment, difficult-to-monitor according to the provisions of [S1.b.vii.2](#)), the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector. (40 CFR 63.1022(c)(3) as referenced by 40 CFR 63.1410)
- 4) Written plan requirements. (40 CFR 63.1022(c)(4) as referenced by 40 CFR 63.1410)
- A) The owner or operator of equipment, unsafe-to-monitor according to the provisions of [S1.b.vii.1](#)) shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected. (40 CFR 63.1022(c)(4)(i) as referenced by 40 CFR 63.1410)
 - B) The owner or operator of equipment, difficult-to-monitor according to the provisions of [S1.b.vii.2](#)) shall have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is

detected. (40 CFR 63.1022(c)(4)(ii) as referenced by 40 CFR 63.1410)

- viii. Special equipment designations: Equipment that is unsafe-to-repair. (40 CFR 63.1022(d) as referenced by 40 CFR 63.1410)
- 1) Designation and criteria. Connectors subject to the provisions of 40 CFR 63.1024(e) may be, unsafe-to-repair if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of 40 CFR 63 Subpart UU, and if the connector will be repaired before the end of the next process unit or affected facility shutdown as specified in 40 CFR 63.1024(e)(2). (40 CFR 63.1022(d)(1) as referenced by 40 CFR 63.1410)
 - 2) Identification of equipment. The identity of connectors, unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded. (40 CFR 63.1022(d)(2) as referenced by 40 CFR 63.1410)
- ix. Leak repair schedule. The owner or operator shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in [S1.b.xi](#) and [S1.b.xii](#). A first attempt at repair as defined in 40 CFR 63 Subpart UU shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing. (40 CFR 63.1024(a) as referenced by 40 CFR 63.1410)
- x. Leak identification removal. (40 CFR 63.1024(c) as referenced by 40 CFR 63.1410)
- 1) Valves and connectors in gas/vapor and light liquid service. The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 CFR 63.1025(d)(2), and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 CFR 63.1027(b)(3)(iv) and no leak has been

- detected during that monitoring. (40 CFR 63.1024(c)(1) as referenced by 40 CFR 63.1410)
- 2) Other equipment. The identification that has been placed, pursuant to 40 CFR 63.1023(e)(1), on equipment determined to have a leak, except for a valve or for a connector in gas/vapor or light liquid service that is subject to the provisions of 40 CFR 63.1027(b)(3)(iv), may be removed after it is repaired. (40 CFR 63.1024(c)(2) as referenced by 40 CFR 63.1410)
- xi. Delay of repair. Delay of repair is allowed for any of the conditions specified in [S1.b.xi.1](#)) through [S1.b.xi.5](#)). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown. (40 CFR 63.1024(d) as referenced by 40 CFR 63.1410)
- 1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in [S1.b.xi.5](#)). (40 CFR 63.1024(d)(1) as referenced by 40 CFR 63.1410)
 - 2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service. (40 CFR 63.1024(d)(2) as referenced by 40 CFR 63.1410)
 - 3) Delay of repair for valves, connectors, and agitators is also allowed if the provisions of [S1.b.xi.3A](#)) and [S1.b.xi.3B](#)) are met. (40 CFR 63.1024(d)(3) as referenced by 40 CFR 63.1410)
 - A) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and (40 CFR 63.1024(d)(3)(i) as referenced by 40 CFR 63.1410)
 - B) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either 40 CFR 63.1034 or 40 CFR

63.1021(b). (40 CFR 63.1024(d)(3)(ii) as referenced by 40 CFR 63.1410)

- 4) Delay of repair for pumps is also allowed if the provisions of [S1.b.xi.4A](#)) and [S1.b.xi.4B](#)) are met. (40 CFR 63.1024(d)(4) as referenced by 40 CFR 63.1410)
 - A) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of 40 CFR 63.1035(d) will provide better performance or one of the specifications of S1.b.xi.4A)(i) through (iii) are met. (40 CFR 63.1024(d)(4)(i) as referenced by 40 CFR 63.1410)
 - (i) A dual mechanical seal system that meets the requirements of 40 CFR 63.1026(e)(1) will be installed; (40 CFR 63.1024(d)(4)(i)(A) as referenced by 40 CFR 63.1410)
 - (ii) A pump that meets the requirements of 40 CFR 63.1026(e)(2) will be installed; or (40 CFR 63.1024(d)(4)(i)(B) as referenced by 40 CFR 63.1410)
 - (iii) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of 40 CFR 63.1026(e)(3) will be installed; and (40 CFR 63.1024(d)(4)(i)(C) as referenced by 40 CFR 63.1410)
 - B) Repair is completed as soon as practical, but not later than 6 months after the leak was detected. (40 CFR 63.1024(d)(4)(ii) as referenced by 40 CFR 63.1410)
- 5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6

months after the first process unit or affected facility shutdown.
(40 CFR 63.1024(d)(5) as referenced by 40 CFR 63.1410)

- xii. Unsafe-to-repair—connectors. Any connector that is, as described in 40 CFR 63.1022(d), as an unsafe-to-repair connector is exempt from the requirements of 40 CFR 63.1027(d), and (a). (40 CFR 63.1024(e) as referenced by 40 CFR 63.1410)

S2. Monitoring (Regulation 2.16, Section 4.1.9.1)

- a. **HAP (Non-LDAR)** (40 CFR 63 Subpart OOO)

See [S3.a](#).

- b. **HAP (LDAR)** (40 CFR 63 Subpart OOO)

- i. Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A, except as otherwise provided in 40 CFR 63.1023(b). (40 CFR 63.1023(b)(1) as referenced by 40 CFR 63.1410)
- ii. Detection instrument performance criteria. (40 CFR 63.1023(b)(2) as referenced by 40 CFR 63.1410)
 - 1) Except as provided for in [S2.b.ii.2](#)), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2, paragraph (a) of Method 21 shall be for the representative composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, air, water or other inerts that are not HAP or VOC, the representative stream response factor shall be determined on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted. (40 CFR 63.1023(b)(2)(i) as referenced by 40 CFR 63.1410)
 - 2) If there is no instrument commercially available that will meet the performance criteria specified in S2.b.ii.1), the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in S2.b.ii.1). (40 CFR 63.1023(b)(2)(ii) as referenced by 40 CFR 63.1410)
- iii. Detection instrument calibration procedure. The detection instrument shall be calibrated before use on each day of its use by the procedures specified

in Method 21 of 40 CFR part 60, appendix A. (40 CFR 63.1023(b)(3) as referenced by 40 CFR 63.1410)

- iv. Detection instrument calibration gas. Calibration gases shall be zero air (less than 10 parts per million of hydrocarbon in air); and the gases specified in [S2.b.iv.1](#) except as provided in [S2.b.iv.2](#). (40 CFR 63.1023(b)(4) as referenced by 40 CFR 63.1410)
 - 1) Mixtures of methane in air at a concentration no more than 2,000 parts per million greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. (40 CFR 63.1023(b)(4)(i) as referenced by 40 CFR 63.1410)
 - 2) A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in 40 CFR 63.1023(b)(2)(i). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air. (40 CFR 63.1023(b)(4)(ii) as referenced by 40 CFR 63.1410)
- v. Monitoring shall be performed when the equipment is in regulated material service or is in use with any other detectable material. (40 CFR 63.1023(b)(5) as referenced by 40 CFR 63.1410)
- vi. Monitoring data obtained prior to the regulated source becoming subject to the referencing subpart that do not meet the criteria specified in [S2.b.i.](#) through [S2.b.v.](#) may still be used to qualify initially for less frequent monitoring under the provisions in 40 CFR 63.1025(a)(2), (b)(3) or (b)(4) for valves or 40 CFR 63.1027(b)(3) for connectors provided the departures from the criteria or from the specified monitoring frequency of 40 CFR 63.1025(b)(3) or (b)(4) or 40 CFR 63.1027(b)(3) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2, paragraph (a) of Method 21 of appendix A of 40 CFR part 60 instead of [S2.b.ii.](#), or monitoring using a different leak definition if the

data would indicate the presence or absence of a leak at the concentration specified in this subpart. Failure to use a calibrated instrument is not considered a minor departure. (40 CFR 63.1023(b)(6) as referenced by 40 CFR 63.1410)

- vii. Instrument monitoring using background adjustments. The owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects not to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in [S2.b.i.](#) through [S2.b.v.](#) In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with 40 CFR 63.1030(b) (pressure relief devices) or 40 CFR 63.1031(f) (alternative compressor standard). If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in [S2.b.vii.1\)](#) through [S2.b.vii.3\).](#) (40 CFR 63.1023(c) as referenced by 40 CFR 63.1410)
 - 1) The background level shall be determined, using the procedures in Method 21 of 40 CFR part 60, appendix A. (40 CFR 63.1023(c)(2) as referenced by 40 CFR 63.1410)
 - 2) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A. (40 CFR 63.1023(c)(3) as referenced by 40 CFR 63.1410)
 - 3) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with 40 CFR 63.1030(b) (pressure relief devices) or 40 CFR 63.1031(f) (alternative compressor standard). (40 CFR 63.1023(c)(4) as referenced by 40 CFR 63.1410)
- viii. Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere. (40 CFR 63.1023(d) as referenced by 40 CFR 63.1410)
- ix. For valves in gas/vapor and light liquid service, the owner or operator shall monitor valves for leaks at the intervals specified in [S2.b.ix.1\)](#) through [S2.b.ix.5\)](#) and shall keep the record specified in S3.b.iv. (40 CFR 63.1025(b)(3) as referenced by 40 CFR 63.1410)

- 1) If at least the greater of 2 valves or 2 percent of the valves in a process unit leak, as calculated according to S2.b.xi., the owner or operator shall monitor each valve once per month. (40 CFR 63.1025(b)(3)(i) as referenced by 40 CFR 63.1410)
 - 2) At process units with less than the greater of 2 leaking valves or 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in [S2.b.ix.3](#)) through [S2.b.ix.5](#)). Monitoring data generated before the regulated source became subject to the referencing subpart and meeting the criteria of either 40 CFR 63.1023(b)(1) through (b)(5), or 40 CFR 63.1023(b)(6), may be used to qualify initially for less frequent monitoring under [S2.b.ix.3](#)) through [S2.b.ix.5](#)). (40 CFR 63.1025(b)(3)(ii) as referenced by 40 CFR 63.1410)
 - 3) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every two quarters. (40 CFR 63.1025(b)(3)(iii) as referenced by 40 CFR 63.1410)
 - 4) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every four quarters. (40 CFR 63.1025(b)(3)(iv) as referenced by 40 CFR 63.1410)
 - 5) At process units with less than 0.25 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 years. (40 CFR 63.1025(b)(3)(v) as referenced by 40 CFR 63.1410)
- x. For valves in gas/vapor and light liquid service, for a process unit or a group of process units to which 40 CFR 63 Subpart UU applies, an owner or operator may choose to subdivide the valves in the applicable process unit or group of process units and apply the provisions of [S2.b.ix.](#) to each subgroup. If the owner or operator elects to subdivide the valves in the applicable process unit or group of process units, then the provisions of [S2.b.x.1](#)) through [S2.b.x.5](#)) apply. (40 CFR 63.1025(b)(4) as referenced by 40 CFR 63.1410)
- 1) The overall performance of total valves in the applicable process unit or group of process units to be subdivided shall be less than 2 percent leaking valves, as detected according to [S2.b.i.](#) and [S2.b.ii.](#) and as calculated according to 40 CFR 63.1025(c)(1)(ii) and (c)(2). (40 CFR 63.1025(b)(4)(i) as referenced by 40 CFR 63.1410)

- 2) The initial assignment or subsequent reassignment of valves to subgroups shall be governed by the provisions of the following S2.b.x.2)A) through C). (40 CFR 63.1025(b)(4)(ii) as referenced by 40 CFR 63.1410)
 - A) The owner or operator shall determine which valves are assigned to each subgroup. Valves with less than one year of monitoring data or valves not monitored within the last twelve months must be placed initially into the most frequently monitored subgroup until at least one year of monitoring data have been obtained. (40 CFR 63.1025(b)(4)(ii)(A) as referenced by 40 CFR 63.1410)
 - B) Any valve or group of valves can be reassigned from a less frequently monitored subgroup to a more frequently monitored subgroup provided that the valves to be reassigned were monitored during the most recent monitoring period for the less frequently monitored subgroup. The monitoring results must be included with that less frequently monitored subgroup's associated percent leaking valves calculation for that monitoring event. (40 CFR 63.1025(b)(4)(ii)(B) as referenced by 40 CFR 63.1410)
 - C) Any valve or group of valves can be reassigned from a more frequently monitored subgroup to a less frequently monitored subgroup provided that the valves to be reassigned have not leaked for the period of the less frequently monitored subgroup (e.g., for the last 12 months, if the valve or group of valves is to be reassigned to a subgroup being monitored annually). Nonrepairable valves may not be reassigned to a less frequently monitored subgroup. (40 CFR 63.1025(b)(4)(ii)(C) as referenced by 40 CFR 63.1410)
- 3) The owner or operator shall determine every 6 months if the overall performance of total valves in the applicable process unit or group of process units is less than 2 percent leaking valves and so indicate the performance in the next Periodic Report. If the overall performance of total valves in the applicable process unit or group of process units is 2 percent leaking valves or greater, the owner or operator shall no longer subgroup and shall revert to the program required in 40 CFR 63.1025(b)(1) through (b)(3) for that applicable process unit or group of process units. An owner or

operator can again elect to comply with the valve subgrouping procedures of [S2.b.x.](#) if future overall performance of total valves in the process unit or group of process units is again less than 2 percent. The overall performance of total valves in the applicable process unit or group of process units shall be calculated as a weighted average of the percent leaking valves of each subgroup according to Equation number 1: (40 CFR 63.1025(b)(4)(iii) as referenced by 40 CFR 63.1410)

$$\%V_{LO} = \frac{\sum_{i=1}^n (\%V_{Li} \times V_i)}{\sum_{i=1}^n V_i} \quad [\text{Eq. 1}]$$

where:

$\%V_{LO}$ = Overall performance of total valves in the applicable process unit or group of process units

$\%V_{Li}$ = Percent leaking valves in subgroup i, most recent value calculated according to the procedures in 40 CFR 63.1025(c)(1)(ii) and (c)(2).

V_i = Number of valves in subgroup i.

n = Number of subgroups.

- 4) To determine the monitoring frequency for each subgroup, the calculation procedures of [S2.b.xi.3](#)) shall be used. (40 CFR 63.1025(b)(4)(vii) as referenced by 40 CFR 63.1410)
 - 5) Except for the overall performance calculations required by [S2.b.x.1](#)) and [S2.b.x.3](#)), each subgroup shall be treated as if it were a process unit for the purposes of applying the provisions of 40 CFR 63.1025. (40 CFR 63.1025(b)(4)(viii) as referenced by 40 CFR 63.1410)
- xi) For valves in gas/vapor and light liquid service, percent leaking valves calculation. (40 CFR 63.1025(c) as referenced by 40 CFR 63.1410)
- 1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the

subgrouping criteria specified in [S2.b.x.1](#)). (40 CFR 63.1025(c)(1)(i) as referenced by 40 CFR 63.1410)

- 2) The percent leaking valves for each monitoring period for each process unit or valve subgroup, as provided in [S2.b.x.](#), shall be calculated using the following equation: (40 CFR 63.1025(c)(1)(ii) as referenced by 40 CFR 63.1410)

$$\%V_L = (V_L/V_T) \times 100 \quad [\text{Eq. 2}]$$

where: % V_L = Percent leaking valves.

V_L = Number of valves found leaking, excluding nonrepairable valves, as provided in [S2.b.xii.](#), and including those valves found leaking pursuant to [S2.b.xiii.3A\)](#) and B).

V_T = The sum of the total number of valves monitored.

- 3) When determining monitoring frequency for each process unit or valve subgroup subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each process unit or valve subgroup subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last three monitoring periods. (40 CFR 63.1025(c)(2) as referenced by 40 CFR 63.1410)
- xii. For valves in gas/vapor and light liquid service, nonrepairable valves. (40 CFR 63.1025(c)(3) as referenced by 40 CFR 63.1410)
- 1) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with [S2.b.xii.2](#)). Otherwise, a number of nonrepairable valves (identified and included in the percent leaking valves calculation in a previous period) up to a maximum of 1 percent of the total number of valves in regulated material service at a process unit or affected facility may be excluded from calculation of percent leaking valves for subsequent monitoring periods. (40 CFR 63.1025(c)(3)(i) as referenced by 40 CFR 63.1410)
 - 2) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in regulated material service at a process

unit or affected facility, the number of nonrepairable valves exceeding 1 percent of the total number of valves in regulated material service shall be included in the calculation of percent leaking valves. (40 CFR 63.1025(c)(3)(ii) as referenced by 40 CFR 63.1410)

- xiii. After a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repaired and first attempt at repair. (40 CFR 63.1025(d)(2) as referenced by 40 CFR 63.1410)
- 1) The monitoring shall be conducted as specified in 40 CFR 63.1023(b) and (c), as appropriate, to determine whether the valve has resumed leaking. (40 CFR 63.1025(d)(2)(i) as referenced by 40 CFR 63.1410)
 - 2) Periodic monitoring required by 40 CFR 63.1025(b) may be used to satisfy the requirements of this paragraph, if the timing of the monitoring period coincides with the time specified in this paragraph. Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph. (40 CFR 63.1025(d)(2)(ii) as referenced by 40 CFR 63.1410)
 - 3) If a leak is detected by monitoring that is conducted pursuant to [S2.b.xiii.](#), the owner or operator shall follow the provisions of [S2.b.xiii.3A\)](#) and [S2.b.xiii.3B\)](#), to determine whether that valve must be counted as a leaking valve for purposes of S2.b.xi.2). (40 CFR 63.1025(d)(2)(iii) as referenced by 40 CFR 63.1410)
 - A) If the owner or operator elected to use periodic monitoring required by 40 CFR 63.1025(b) to satisfy the requirements of [S2.b.xiii.](#), then the valve shall be counted as a leaking valve. (40 CFR 63.1025(d)(2)(iii)(A) as referenced by 40 CFR 63.1410)
 - B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by 40 CFR 63.1025(b), to satisfy the requirements of [S2.b.xiii.](#), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be

leaking. (40 CFR 63.1025(d)(2)(iii)(B) as referenced by 40 CFR 63.1410)

- xiv. Unsafe-to-monitor valves. Any valve that is, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 63.1025(b) and (d)(2) and the owner or operator shall monitor the valve according to the written plan specified in 40 CFR 63.1022(c)(4). (40 CFR 63.1025(e)(1) as referenced by 40 CFR 63.1410)
- xv. Difficult-to-monitor valves. Any valve that is, as described in 40 CFR 63.1022(c)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 63.1025(b) and the owner or operator shall monitor the valve according to the written plan specified in 40 CFR 63.1022(c)(4). (40 CFR 63.1025(e)(2) as referenced by 40 CFR 63.1410)
- xvi. For pumps in light liquid service,
 - 1) The pumps shall be monitored monthly to detect leaks by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c). (40 CFR 63.1026(b)(1) as referenced by 40 CFR 63.1410)
 - 2) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either S2.b.x.2)A) or S2.b.x.2)B). (40 CFR 63.1026(b)(4) as referenced by 40 CFR 63.1410)
 - A) The owner or operator shall monitor the pump as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c). If the instrument reading indicates a leak as specified in S1.b.ii., a leak is detected and it shall be repaired using the procedures in 40 CFR 63.1024, except as specified in 40 CFR 63.1026(b)(3); or (40 CFR 63.1026(b)(4)(i) as referenced by 40 CFR 63.1410)
 - B) The owner or operator shall eliminate the visual indications of liquids dripping. (40 CFR 63.1026(b)(4)(ii) as referenced by 40 CFR 63.1410)

- xvii. For pumps in light liquid service, percent leaking pumps calculation. (40 CFR 63.1026(c) as referenced by 40 CFR 63.1410)
- 1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis. (40 CFR 63.1026(c)(1) as referenced by 40 CFR 63.1410)
 - 2) If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.1035. (40 CFR 63.1026(c)(2) as referenced by 40 CFR 63.1410)
 - 3) The number of pumps at a process unit or affected facility shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or affected facility within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. (40 CFR 63.1026(c)(3) as referenced by 40 CFR 63.1410)
 - 4) Percent leaking pumps shall be determined by the following equation: (40 CFR 63.1026(c)(4) as referenced by 40 CFR 63.1410)

$$\%P_L = \left(\frac{P_L - P_S}{P_T - P_S} \right) \times 100 \quad [Eq. 3]$$

Where:

$\%P_L$ = Percent leaking pumps

P_L = Number of pumps found leaking as determined through monthly monitoring as required in S2.b.xvi.1). Do not include results from inspection of unsafe-to-monitor pumps pursuant to S2.b.xix.6).

P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period.

P_T = Total pumps in regulated material service, including those meeting the criteria in S2.b.xix.1), S2.b.xix.2), S2.b.xix.3), and S2.b.xix.6).

- xviii. For pumps in light liquid service, if a leak is detected pursuant to 40 CFR 63.1026(b), then the leak shall be repaired using the procedures in 40 CFR 63.1024, as applicable, unless otherwise specified in 40 CFR 63.1026(b)(5) for leaks identified by visual indications of liquids dripping. (40 CFR 63.1026(d) as referenced by 40 CFR 63.1410)
- xix. Special provisions for pumps. (40 CFR 63.1026(e) as referenced by 40 CFR 63.1410)
- 1) Dual mechanical seal pumps. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.1026(b), provided the requirements specified in 40 CFR 63(e)(1)(i) through (e)(1)(viii) are met. (40 CFR 63.1026(e)(1) as referenced by 40 CFR 63.1410)
 - A) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. The owner or operator shall keep records at the plant of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. This record must be available for review by an inspector. (40 CFR 63.1026(e)(1)(i) as referenced by 40 CFR 63.1410)
 - B) Each dual mechanical seal system shall meet the requirements specified in S2.b.xix.1)B)(1), (2) or (3). (40 CFR 63.1026(e)(1)(ii) as referenced by 40 CFR 63.1410)
 - (1) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or (40 CFR 63.1026(e)(1)(ii)(A) as referenced by 40 CFR 63.1410)
 - (2) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b); or (40 CFR 63.1026(e)(1)(ii)(B) as referenced by 40 CFR 63.1410)

- (3) Equipped with a closed-loop system that purges the barrier fluid into a process stream. (40 CFR 63.1026(e)(1)(ii)(C) as referenced by 40 CFR 63.1410)
- C) The barrier fluid is not in light liquid service. (40 CFR 63.1026(e)(1)(iii) as referenced by 40 CFR 63.1410)
- D) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. (40 CFR 63.1026(e)(1)(iv) as referenced by 40 CFR 63.1410)
- E) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in 40 CFR 63.1026(e)(1)(v)(A) or (e)(1)(v)(B) prior to the next required inspection. (40 CFR 63.1026(e)(1)(v) as referenced by 40 CFR 63.1410)
 - (i) The owner or operator shall monitor the pump as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), to determine if there is a leak of regulated material in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in 40 CFR 63.1024; or (40 CFR 63.1026(e)(1)(v)(A) as referenced by 40 CFR 63.1410)
 - (ii) The owner or operator shall eliminate the visual indications of liquids dripping. (40 CFR 63.1026(e)(1)(v)(B) as referenced by 40 CFR 63.1410)
- F) If indications of liquids dripping from the pump seal exceed the criteria established in 40 CFR 63.1026(e)(1)(i), or if based on the criteria established in 40 CFR 63.1026(e)(1)(i) the sensor indicates failure of the seal

- system, the barrier fluid system, or both, a leak is detected. (40 CFR 63.1026(e)(1)(vi) as referenced by 40 CFR 63.1410)
- G) Each sensor as described in 40 CFR 63.1026(e)(1)(iv) is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site. (40 CFR 63.1026(e)(1)(vii) as referenced by 40 CFR 63.1410)
- H) When a leak is detected pursuant to 40 CFR 63.1026(e)(1)(vi), it shall be repaired as specified in 40 CFR 63.1024. (40 CFR 63.1026(e)(1)(viii) as referenced by 40 CFR 63.1410)
- 2) No external shaft. Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of 40 CFR 63.1026(b). (40 CFR 63.1026(e)(2) as referenced by 40 CFR 63.1410)
- 3) Routed to a process or fuel gas system or equipped with a closed vent system. Any pump that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage from the pump to a control device meeting the requirements of 40 CFR 63.1034 or 40 CFR 63.1021(b) is exempt from the requirements of 40 CFR 63.1026(b). (40 CFR 63.1026(e)(3) as referenced by 40 CFR 63.1410)
- 4) 90 percent exemption. If more than 90 percent of the pumps at a process unit or affected facility meet the criteria in either 40 CFR 63.1026(e)(1) or (e)(2), the process unit or affected facility is exempt from the percent leaking calculation in 40 CFR 63.1026(c). (40 CFR 63.1026(e)(5) as referenced by 40 CFR 63.1410)
- 5) Unsafe-to-monitor pumps. Any pump that is, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor pump is exempt from the requirements of 40 CFR 63.1026(b), the monitoring and inspection requirements of 40 CFR 63.1026(e)(1)(v) through (viii), and the owner or operator shall monitor and inspect the pump according to the written plan specified in 40 CFR 63.1022(c)(4). (40 CFR 63.1026(e)(6) as referenced by 40 CFR 63.1410)
- xx. For connectors in gas/vapor and light liquid service,

- 1) The owner or operator shall perform monitoring, subsequent to the initial monitoring required in 40 CFR 63.1027(a), as specified in 40 CFR 63.1026(b)(3)(i) through (b)(3)(iii), and shall comply with the requirements of 40 CFR 63.1026(b)(3)(iv) and (b)(3)(v). The required period in which monitoring must be conducted shall be determined from 40 CFR 63.1026(b)(3)(i) through (b)(3)(iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 63.1026(c). (40 CFR 63.1027(b)(3) as referenced by 40 CFR 63.1410)
 - A) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year). (40 CFR 63.1027(b)(3)(i) as referenced by 40 CFR 63.1410)
 - B) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4 year monitoring period. (40 CFR 63.1027(b)(3)(ii) as referenced by 40 CFR 63.1410)
 - C) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in 40 CFR 63.1027(b)(3)(iii)(A) and either 40 CFR 63.1027(b)(3)(iii)(B) or (b)(3)(iii)(C), as appropriate. (40 CFR 63.1027(b)(3)(iii) as referenced by 40 CFR 63.1410)
 - (i) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period. (40 CFR 63.1027(b)(3)(iii)(A) as referenced by 40 CFR 63.1410)
 - (ii) If the percent leaking connectors calculated from the monitoring results in 40 CFR 63.1027(b)(3)(iii)(A) is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have

not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to 40 CFR 63.1027(b)(3), based on the percent leaking connectors of the total monitored connectors. (40 CFR 63.1027(b)(3)(iii)(B) as referenced by 40 CFR 63.1410)

- (iii) If the percent leaking connectors calculated from the monitoring results in 40 CFR 63.1027(b)(3)(iii)(A) is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period. (40 CFR 63.1027(b)(3)(iii)(C) as referenced by 40 CFR 63.1410)
 - D) If, during the monitoring conducted pursuant to 40 CFR 63.1027(b)(3)(i) through (b)(3)(iii), a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking. (40 CFR 63.1027(b)(3)(iv) as referenced by 40 CFR 63.1410)
 - E) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit. (40 CFR 63.1027(b)(3)(v) as referenced by 40 CFR 63.1410)
- 2) Percent leaking connectors calculation. For use in determining the monitoring frequency, as specified in 40 CFR 63.1027(a) and (b)(3), the percent leaking connectors as used in 40 CFR 63.1027(a) and (b)(3) shall be calculated by using equation number 4. (40 CFR 63.1027(c) as referenced by 40 CFR 63.1410)

$$\%C_L = C_L / C_T \times 100 \quad [\text{Eq. 4}]$$

Where:

$\%C_L$ = Percent leaking connectors as determined through periodic monitoring required in 40 CFR 63.1027(a) and (b)(3)(i) through (b)(3)(iii).

C_L = Number of connectors measured at 500 parts per million or greater, by the method specified in 40 CFR 63.1023(b).

C_t = Total number of monitored connectors in the process unit or affected facility.

- 3) Special provisions for connectors. (40 CFR 63.1027(e) as referenced by 40 CFR 63.1410)
 - A) Unsafe-to-monitor connectors. Any connector that is, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 63.1027(a) and (b) and the owner or operator shall monitor according to the written plan specified in 40 CFR 63.1022(c)(4). (40 CFR 63.1027(e)(1) as referenced by 40 CFR 63.1410)
 - B) Inaccessible, ceramic, or ceramic-lined connectors. (40 CFR 63.1027(e)(2) as referenced by 40 CFR 63.1410)
 - (i) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 63.1027(a) and (b), from the leak repair requirements of 40 CFR 63.1027(d), and from the recordkeeping and reporting requirements of 40 CFR 63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in 40 CFR 63.1027(e)(2)(i)(A) through (e)(2)(i)(F), as applicable. (40 CFR 63.1027(e)(2)(i) as referenced by 40 CFR 63.1410)
 - (1) Buried; (40 CFR 63.1027(e)(2)(i)(A) as referenced by 40 CFR 63.1410)
 - (2) Insulated in a manner that prevents access to the connector by a monitor probe; (40 CFR 63.1027(e)(2)(i)(B) as referenced by 40 CFR 63.1410)
 - (3) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (40 CFR 63.1027(e)(2)(i)(C) as referenced by 40 CFR 63.1410)
 - (4) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground. (40 CFR

- 63.1027(e)(2)(i)(D) as referenced by 40 CFR 63.1410)
- (5) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; (40 CFR 63.1027(e)(2)(i)(E) as referenced by 40 CFR 63.1410)
 - (6) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. (40 CFR 63.1027(e)(2)(i)(F) as referenced by 40 CFR 63.1410)
- (ii) If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. (40 CFR 63.1027(e)(2)(ii) as referenced by 40 CFR 63.1410)
- xxi. For agitators in gas/vapor and light liquid service, each agitator seal shall be monitored monthly to detect leaks by the methods specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), except as provided in 40 CFR 63.1021(b), 40 CFR 63.1036, 40 CFR 63.1037, or 40 CFR 63.1028(e). (40 CFR 63.1028(c)(1) as referenced by 40 CFR 63.1410)
 - xxii. For agitators in gas/vapor and light liquid service, visual inspection. (40 CFR 63.1028(c)(3) as referenced by 40 CFR 63.1410)
 - 1) Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. (40 CFR 63.1028(c)(3)(i) as referenced by 40 CFR 63.1410)

- 2) If there are indications of liquids dripping from the agitator seal, the owner or operator shall follow the procedures specified in 40 CFR 63.1028(c)(3)(ii)(A) or (B) prior to the next required inspection. (40 CFR 63.1028(c)(3)(ii) as referenced by 40 CFR 63.1410)
 - A) The owner or operator shall monitor the agitator seal as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it shall be repaired according to 40 CFR 63.1028(d); or (40 CFR 63.1028(c)(3)(ii)(A) as referenced by 40 CFR 63.1410)
 - B) The owner or operator shall eliminate the indications of liquids dripping from the agitator seal. (40 CFR 63.1028(c)(3)(ii)(B) as referenced by 40 CFR 63.1410)
- xxiii. For agitators in gas/vapor and light liquid service, special provisions for agitators. (40 CFR 63.1028(e) as referenced by 40 CFR 63.1410)
 - 1) Dual mechanical seal. Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.1028(c), provided the requirements specified in 40 CFR 63.1028(e)(1)(i) through (e)(1)(vi) are met. (40 CFR 63.1028(e)(1) as referenced by 40 CFR 63.1410)
 - A) Each dual mechanical seal system shall meet the applicable requirements specified in 40 CFR 63.1028(e)(1)(i)(A), (B), or (C). (40 CFR 63.1028(e)(1)(i) as referenced by 40 CFR 63.1410)
 - (i) Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or (40 CFR 63.1028(e)(1)(i)(A) as referenced by 40 CFR 63.1410)
 - (ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control

- device that meets the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b); or (40 CFR 63.1028(e)(1)(i)(B) as referenced by 40 CFR 63.1410)
- (iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream. (40 CFR 63.1028(e)(1)(i)(C) as referenced by 40 CFR 63.1410)
- B) The barrier fluid is not in light liquid service. (40 CFR 63.1028(e)(1)(ii) as referenced by 40 CFR 63.1410)
 - C) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. (40 CFR 63.1028(e)(1)(iii) as referenced by 40 CFR 63.1410)
 - D) Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in 40 CFR 63.1028(e)(1)(iv)(A) or (e)(1)(iv)(B) prior to the next required inspection. (40 CFR 63.1028(e)(1)(iv) as referenced by 40 CFR 63.1410)
 - (i) The owner or operator shall monitor the agitator seal as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), to determine the presence of regulated material in the barrier fluid. If an instrument reading equivalent to or greater than 10,000 ppm is measured, a leak is detected and it shall be repaired using the procedures in 40 CFR 63.1024, or (40 CFR 63.1028(e)(1)(iv)(A) as referenced by 40 CFR 63.1410)
 - (ii) The owner or operator shall eliminate the visual indications of liquids dripping. (40 CFR 63.1028(e)(1)(iv)(B) as referenced by 40 CFR 63.1410)
 - E) Each sensor as described in 40 CFR 63.1028(e)(1)(iii) is observed daily or is equipped with an alarm unless the

agitator seal is located within the boundary of an unmanned plant site. (40 CFR 63.1028(e)(1)(v) as referenced by 40 CFR 63.1410)

- F) The owner or operator of each dual mechanical seal system shall meet the requirements specified in 40 CFR 63.1028(e)(1)(vi)(A) and (e)(1)(vi)(B). (40 CFR 63.1028(e)(1)(vi) as referenced by 40 CFR 63.1410)
- (i) The owner or operator shall determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if, based on the criteria the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected and shall be repaired pursuant to 40 CFR 63.1024, as applicable. (40 CFR 63.1028(e)(1)(vi)(A) as referenced by 40 CFR 63.1410)
 - (ii) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. (40 CFR 63.1028(e)(1)(vi)(B) as referenced by 40 CFR 63.1410)
- 2) No external shaft. Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from 40 CFR 63.1028(c). (40 CFR 63.1028(e)(2) as referenced by 40 CFR 63.1410)
- 3) Routed to a process or fuel gas system or equipped with a closed vent system. Any agitator that is routed to a process or fuel gas system that captures and transports leakage from the agitator to a control device meeting the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b) is exempt from the requirements of 40 CFR 63.1028(c). (40 CFR 63.1028(e)(3) as referenced by 40 CFR 63.1410)
- 4) Difficult-to-monitor agitator seals. Any agitator seal that is,, as described in 40 CFR 63.1022(c)(2), as a difficult-to-monitor

agitator seal is exempt from the requirements of 40 CFR 63.1028(c) and the owner or operator shall monitor the agitator seal according to the written plan specified in 40 CFR 63.1022(c)(4). (40 CFR 63.1028(e)(5) as referenced by 40 CFR 63.1410)

- 5) Equipment obstructions. Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of 40 CFR 63.1028(c). (40 CFR 63.1028(e)(6) as referenced by 40 CFR 63.1410)
- 6) Unsafe-to-monitor agitator seals. Any agitator seal that is, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor agitator seal is exempt from the requirements of 40 CFR 63.1028(c) and the owner or operator of the agitator seal monitors the agitator seal according to the written plan specified in 40 CFR 63.1022(c)(4). (40 CFR 63.1028(e)(7) as referenced by 40 CFR 63.1410)

S3. Record Keeping (Regulation 2.16, Section 4.1.9.2)

a. HAP (Non-LDAR) (40 CFR 63 Subpart OOO)

- i. Unless otherwise specified in this subpart, each owner or operator of an affected source shall keep copies of all applicable records and reports required by this subpart for at least 5 years, as specified in 40 CFR 63.1416(a)(1), with the exception listed in 40 CFR 63.1416(a)(2). (40 CFR 63.1416(a))
 - 1) All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining 4 and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, CD-ROM, optical disc, magnetic tape, or microfiche. (40 CFR 63.1416(a)(1))
 - 2) If an owner or operator submits copies of reports to the appropriate EPA Regional Office, the owner or operator is not required to maintain copies of reports. If the EPA Regional Office has waived the requirement of 40 CFR 63.10(a)(4)(ii) for submittal of copies

of reports, the owner or operator is not required to maintain copies of those reports. (40 CFR 63.1416(a)(2))

- ii. Start-up, shutdown, and malfunction plan and records. The owner or operator of an affected source shall develop a start-up, shutdown, and malfunction plan as specified in 40 CFR 63.6(e)(3) and shall keep the plan on-site. Records shall be kept as specified in 40 CFR 63.1416(b)(1) and (2). Records are not required for emission points that do not require control under this subpart. (40 CFR 63.1416(b))
 - 1) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment, or control devices, or recovery devices, or continuous monitoring systems, or control technologies used to comply with this subpart during which excess emissions (as defined in 40 CFR 63.1400(k)(4)) occur. (40 CFR 63.1416(b)(1))
 - 2) For each start-up, shutdown, or malfunction during which excess emissions (as defined in §63.1400(k)(4)) occur, records reflecting whether the procedures specified in the affected source's start-up, shutdown, and malfunction plan were followed and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device (e.g., a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records shall be kept of whether the plan was followed. These records may take the form of a "checklist" or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event. (40 CFR 63.1416(b)(2))
- iii. If a batch process vent is seeking to demonstrate compliance with the mass emission limits specified in 40 CFR 63.1406(a)(1)(iii) or (a)(2)(iii) or specified in 40 CFR 63.1407(b)(2), the following information shall be kept, readily accessible: (40 CFR 63.1416(d)(1)(v))
 - 1) Results of the initial compliance demonstration specified in 40 CFR 63.1413(e)(2). (40 CFR 63.1416(d)(1)(v)(A))
 - 2) The organic HAP emissions from the batch process vent associated with each single type of batch cycle (Ecycle i) determined as specified in 40 CFR 63.1413(e)(2). (40 CFR 63.1416(d)(1)(v)(B))

- iv. Each owner or operator of a batch process vent seeking to demonstrate compliance with the mass emission limits, specified in 40 CFR 63.1406(a)(1)(iii) or (a)(2)(iii), shall keep the following records, as applicable, readily accessible. (40 CFR 63.1416(d)(3)(iv))
 - 1) The cumulative average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate. (40 CFR 63.1416(d)(3)(iv)(A))
 - 2) If there is a deviation from the mass emission limit, as specified in 40 CFR 63.1413(h), the individual monthly emission rate data points making up the cumulative average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate. (40 CFR 63.1416(d)(3)(iv)(B))
 - 3) If it becomes necessary to redetermine (Ecycle i) for a reactor batch process vent, as specified in 40 CFR 63.1413(e)(2), the new value(s) for (Ecycle i). (40 CFR 63.1416(d)(3)(iv)(C))
- b. **HAP (LDAR)** (40 CFR 63 Subpart OOO)
 - i. When each leak is detected pursuant to the monitoring specified in 40 CFR 63.1023(a), a weatherproof and readily visible identification, shall be attached to the leaking equipment. (40 CFR 63.1023(e)(1) as referenced by 40 CFR 63.1410)
 - ii. When each leak is detected, the information specified in 40 CFR 63.1024(f) shall be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the 8 year monitoring period allowed under 40 CFR 63.1027(b)(3)(iii) shall be kept 5 years beyond the date of its last use. (40 CFR 63.1023(e)(2) as referenced by 40 CFR 63.1410)
 - iii. Leak repair records. For each leak detected, the information specified in 40 CFR 63.1024(f)(1) through (f)(5) shall be recorded and maintained pursuant to 40 CFR 63 Subpart OOO. (40 CFR 63.1024(f) as referenced by 40 CFR 63.1410)
 - 1) The date of first attempt to repair the leak. (40 CFR 63.1024(f) as referenced by 40 CFR 63.1410)
 - 2) The date of successful repair of the leak. (40 CFR 63.1024(f)(2) as referenced by 40 CFR 63.1410)

- 3) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A at the time the leak is successfully repaired or determined to be nonrepairable. (40 CFR 63.1024(f)(3) as referenced by 40 CFR 63.1410)
 - 4) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in 40 CFR 63.1024(f)(4)(i) and (f)(4)(ii). (40 CFR 63.1024(f)(4) as referenced by 40 CFR 63.1410)
 - A) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. (40 CFR 63.1024(f)(4)(i) as referenced by 40 CFR 63.1410)
 - B) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. (40 CFR 63.1024(f)(4)(ii) as referenced by 40 CFR 63.1410)
 - 5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired. (40 CFR 63.1024(f)(5) as referenced by 40 CFR 63.1410)
- iv. For valves in gas/vapor and light liquid service, the owner or operator shall keep a record of the monitoring schedule for each process unit. (40 CFR 63.1025(b)(3)(vi) as referenced by 40 CFR 63.1410)
 - v. The owner or operator shall maintain records specified in 40 CFR 63.1025(b)(4)(iv)(A) through (b)(4)(iv)(D). (40 CFR 63.1025(b)(4)(iv) as referenced by 40 CFR 63.1410)
 - 1) Which valves are assigned to each subgroup, (40 CFR 63.1025(b)(4)(iv)(A) as referenced by 40 CFR 63.1410)
 - 2) Monitoring results and calculations made for each subgroup for each monitoring period, (40 CFR 63.1025(b)(4)(iv)(B) as referenced by 40 CFR 63.1410)

- 3) Which valves are reassigned, the last monitoring result prior to reassignment, and when they were reassigned, and (40 CFR 63.1025(b)(4)(iv)(C) as referenced by 40 CFR 63.1410)
 - 4) The results of the semiannual overall performance calculation required in 40 CFR 63.1025(b)(4)(iii). (40 CFR 63.1025(b)(4)(iv)(D) as referenced by 40 CFR 63.1410)
- vi. General equipment leak records. (40 CFR 63.1038(b) as referenced by 40 CFR 63.1410)
- 1) As specified in 40 CFR 63.1022(a) and (b), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation. (40 CFR 63.1038(b)(1) as referenced by 40 CFR 63.1410)
 - 2) The owner or operator shall keep a written plan as specified in 40 CFR 63.1022(c)(4) for any equipment that is, unsafe- or difficult-to-monitor. (40 CFR 63.1038(b)(2) as referenced by 40 CFR 63.1410)
 - 3) The owner or operator shall maintain a record of the identity and an explanation as specified in 40 CFR 63.1022(d)(2) for any equipment that is, unsafe-to-repair. (40 CFR 63.1038(b)(3) as referenced by 40 CFR 63.1410)
 - 4) As specified in 40 CFR 63.1022(e), the owner or operator shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million. (40 CFR 63.1038(b)(4) as referenced by 40 CFR 63.1410)
 - 5) The owner or operator shall keep records associated with the determination that equipment is in heavy liquid service as specified in 40 CFR 63.1022(f). (40 CFR 63.1038(b)(5) as referenced by 40 CFR 63.1410)
 - 6) The owner or operator shall keep records for leaking equipment as specified in 40 CFR 63.1023(e)(2). (40 CFR 63.1038(b)(6) as referenced by 40 CFR 63.1410)
 - 7) The owner or operator shall keep records for leak repair as specified in 40 CFR 63.1024(f) and records for delay of repair as

specified in 40 CFR 63.1024(d). (40 CFR 63.1038(b)(7) as referenced by 40 CFR 63.1410)

- vii. Specific equipment leak records. (40 CFR 63.1038(c) as referenced by 40 CFR 63.1410)
 - 1) For valves, the owner or operator shall maintain the records specified in 40 CFR 63.1038(c)(1)(i) and (c)(1)(ii). (40 CFR 63.1038(c)(1) as referenced by 40 CFR 63.1410)
 - A) The monitoring schedule for each process unit as specified in 40 CFR 63.1025(b)(3)(vi). (40 CFR 63.1038(c)(1)(i) as referenced by 40 CFR 63.1410)
 - B) The valve subgrouping records specified in 40 CFR 63.1025(b)(4)(iv), if applicable. (40 CFR 63.1038(c)(1)(ii) as referenced by 40 CFR 63.1410)
 - 2) For pumps, the owner or operator shall maintain the records specified in 40 CFR 63.1038(c)(2)(i) through (c)(2)(iii). (40 CFR 63.1038(c)(2) as referenced by 40 CFR 63.1410)
 - A) Documentation of pump visual inspections as specified in 40 CFR 63.1026(b)(4). (40 CFR 63.1038(c)(2)(i) as referenced by 40 CFR 63.1410)
 - B) Documentation of dual mechanical seal pump visual inspections as specified in 40 CFR 63.1026(e)(1)(v). (40 CFR 63.1038(c)(2)(ii) as referenced by 40 CFR 63.1410)
 - C) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in 40 CFR 63.1026(e)(1)(i). (40 CFR 63.1038(c)(2)(iii) as referenced by 40 CFR 63.1410)
 - 3) For connectors, the owner or operator shall maintain the monitoring schedule for each process unit as specified in 40 CFR 63.1027(b)(3)(v). (40 CFR 63.1038(c)(3) as referenced by 40 CFR 63.1410)
 - 4) For agitators, the owner or operator shall maintain the following records: (40 CFR 63.1038(c)(4) as referenced by 40 CFR 63.1410)

- A) Documentation of agitator seal visual inspections as specified in 40 CFR 63.1028; and (40 CFR 63.1038(c)(4)(i) as referenced by 40 CFR 63.1410)
 - B) For the criteria as to the presence and frequency of drips for agitators, the owner or operator shall keep records of the design criteria and explanations and any changes and the reason for the changes, as specified in 40 CFR 63.1028(e)(1)(vi). (40 CFR 63.1038(c)(4)(ii) as referenced by 40 CFR 63.1410)
- 5) For pressure relief devices in gas and vapor or light liquid service, the owner or operator shall keep records of the dates and results of monitoring following a pressure release, as specified in 40 CFR 63.1030(c)(3). (40 CFR 63.1038(c)(5) as referenced by 40 CFR 63.1410)
- 6) For compressors, the owner or operator shall maintain the records specified in 40 CFR 63.1038(c)(6)(i) and (c)(6)(ii). (40 CFR 63.1038(c)(6) as referenced by 40 CFR 63.1410)
- A) For criteria as to failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes and the reason for the changes, as specified in 40 CFR 63.1031(d)(2). (40 CFR 63.1038(c)(6)(i) as referenced by 40 CFR 63.1410)
 - B) For compressors operating under the alternative compressor standard, record the dates and results of each compliance test as specified in 40 CFR 63.1031(f)(2). (40 CFR 63.1038(c)(6)(ii) as referenced by 40 CFR 63.1410)
- 7) For a pump QIP program, the owner or operator shall maintain the records specified in 40 CFR 63.1038(c)(7)(i) through (c)(7)(v). (40 CFR 63.1038(c)(7) as referenced by 40 CFR 63.1410)
- A) Individual pump records as specified in 40 CFR 63.1035(d)(2). (40 CFR 63.1038(c)(7)(i) as referenced by 40 CFR 63.1410)
 - B) Trial evaluation program documentation as specified in 40 CFR 63.1035(d)(6)(iii). (40 CFR 63.1038(c)(7)(ii) as referenced by 40 CFR 63.1410)

- C) Engineering evaluation documenting the basis for judgment that superior emission performance technology is not applicable as specified in 40 CFR 63.1035(d)(6)(vi). (40 CFR 63.1038(c)(7)(iii) as referenced by 40 CFR 63.1410)
- D) Quality assurance program documentation as specified in 40 CFR 63.1035(d)(7). (40 CFR 63.1038(c)(7)(iv) as referenced by 40 CFR 63.1410)
- E) QIP records as specified in 40 CFR 63.1035(e). (40 CFR 63.1038(c)(7)(v) as referenced by 40 CFR 63.1410)

S3. Reporting (Regulation 2.16, Section 4.1.9.3)

a. HAP (Non-LDAR) (40 CFR 63 Subpart OOO)

- i. Except as specified in 40 CFR 63.1417(f)(12), a report containing the information in 40 CFR 63.1417(f)(2) or containing the information in 40 CFR 63.1417(f)(3) through (11), as appropriate, shall be submitted semiannually no later than 60 days after the end of each 180 day period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. Subsequent reports shall cover each preceding 6-month period. (40 CFR 63.1417(f)(1)) (See Comment 3.)
- ii. If none of the compliance exceptions specified in 40 CFR 63.1417(f)(3) through (11) occurred during the 6-month period, the Periodic Report required by 40 CFR 63.1417(f)(1) shall be a statement that the affected source was in compliance for the preceding 6-month period and no activities specified in 40 CFR 63.1417(f)(3) through (11) occurred during the preceding 6-month period. (40 CFR 63.1417(f)(2))
- iii. Notification if one or more emission point(s) or one or more APPU is added to an affected source. The owner or operator shall submit the following information: (40 CFR 63.1417(f)(4))
 - 1) A description of the addition to the affected source; (40 CFR 63.1417(f)(4)(i))
 - 2) Notification of applicability status (i.e., does the emission point require control) of the additional emission point, if appropriate, or notification of all emission points in the added APPU. (40 CFR 63.1417(f)(4)(ii))

- iv. If there is a deviation from the mass emission limit specified in 40 CFR 63.1406(a)(1)(iii) or (a)(2)(iii), 40 CFR 63.1407(b)(2), or 40 CFR 63.1408(b)(2), the following information, as appropriate, shall be included: (40 CFR 63.1417(f)(5))
 - 1) The cumulative average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate. (40 CFR 63.1417(f)(5)(i))
 - 2) The individual monthly emission rate data points making up the cumulative average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate. (40 CFR 63.1417(f)(5)(ii))
 - 3) If an owner or operator is demonstrating compliance using the procedures in 40 CFR 63.1413(e)(2)(ii), the monthly value of the site-specific emission limit. (40 CFR 63.1417(f)(5)(iii))
- v. The Periodic Report shall include the results for each change made to a primary product determination for amino/phenolic resins made under 40 CFR 63.1400(g). (40 CFR 63.1417(f)(7))
- vi. The Periodic Report shall include the results for each change made to a predominant use determination for a storage vessel belonging to an affected source subject to this subpart that is made under 40 CFR 63.1400(h)(6). (40 CFR 63.1417(f)(8))
- vii. For the purposes of this subpart, the semiannual start-up, shutdown, and malfunction reports shall be submitted on the same schedule as the Periodic Reports required under 40 CFR 63.1417(f) instead of being submitted on the schedule specified in 40 CFR 63.10(d)(5)(i). Said reports shall include the information specified in 40 CFR 63.1416(b)(1) and (2) and shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy. (40 CFR 63.1417(g))
- viii. Owners or operators of APPU or emission points (other than equipment leak components subject to 40 CFR 63.1410) that are added to the affected source under the provisions of 40 CFR 63.1400(d)(2) or (3) or under the provisions of 40 CFR 63.5(b)(6) shall submit reports as specified in 40 CFR 63.1417(h)(5)(i) through (ii). (40 CFR 63.1417(h)(5))
 - 1) Reports shall include: (40 CFR 63.1417(h)(5)(i))

- A) A description of the process change or addition, as appropriate; (40 CFR 63.1417(h)(5)(i)(A))
 - B) The planned start-up date and the appropriate compliance date; and (40 CFR 63.1417(h)(5)(i)(B))
 - C) Identification of the emission points (except equipment leak components subject to 40 CFR 63.1410) specified in 40 CFR 63.1417(h)(5)(i)(C)(1) through (3), as applicable. (40 CFR 63.1417(h)(5)(i)(C))
 - (i) All the emission points in an added APPU. (40 CFR 63.1417(h)(5)(i)(C)(1))
 - (ii) All the emission points in an affected source that becomes a new affected source. (40 CFR 63.1417(h)(5)(i)(C)(2))
 - (iii) All the added or created emission points resulting from a process change. (40 CFR 63.1417(h)(5)(i)(C)(3))
- 2) If the owner or operator wishes to request approval to use alternative monitoring parameters, alternative continuous monitoring or recordkeeping, alternative controls, engineering assessment to estimate organic HAP emissions from a batch emissions episode, or wishes to establish parameter monitoring levels according to the procedures contained in 40 CFR 63.1413(a)(1)(ii) or (ii), a Precompliance Report shall be submitted no later than 180 days prior to the appropriate compliance date. (40 CFR 63.1417(h)(5)(ii))
- b. **HAP (LDAR)** (40 CFR 63 Subpart OOO)
- i. The owner or operator shall notify the Administrator no later than 30 days prior to the beginning of the next monitoring period of the decision to subgroup valves. The notification shall identify the participating process units and the number of valves assigned to each subgroup, if applicable, and may be included in the next Periodic Report. (40 CFR 63.1025(b)(4)(v) as referenced by 40 CFR 63.1410)

- ii. If applicable, the owner or operator shall submit in the periodic reports the information specified in 40 CFR 63.1025(b)(4)(vi)(A) and (b)(4)(vi)(B). (40 CFR 63.1025(b)(4)(vi) as referenced by 40 CFR 63.1410)
 - 1) Total number of valves in each subgroup, and (40 CFR 63.1025(b)(4)(vi)(A) as referenced by 40 CFR 63.1410)
 - 2) Results of the semiannual overall performance calculation required by 40 CFR 63.1025(b)(4)(iii). (40 CFR 63.1025(b)(4)(vi)(B) as referenced by 40 CFR 63.1410)
- iii. For the equipment specified in 40 CFR 63.1039(b)(1)(i) through (b)(1)(v), report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by 40 CFR 63.1024, and for valves and connectors, identify the number of components that are determined by 40 CFR 63.1025(c)(3) to be nonrepairable. (40 CFR 63.1039(b)(1) as referenced by 40 CFR 63.1410)
 - 1) Valves in gas and vapor service and in light liquid service pursuant to 40 CFR 63.1025(b) and (c). (40 CFR 63.1039(b)(1)(i) as referenced by 40 CFR 63.1410)
 - 2) Pumps in light liquid service pursuant to 40 CFR 63.1026(b) and (c). (40 CFR 63.1039(b)(1)(ii) as referenced by 40 CFR 63.1410)
 - 3) Connectors in gas and vapor service and in light liquid service pursuant to 40 CFR 63.1027(b) and (c). (40 CFR 63.1039(b)(1)(iii) as referenced by 40 CFR 63.1410)
 - 4) Agitators in gas and vapor service and in light liquid service pursuant to 40 CFR 63.1028(c). (40 CFR 63.1039(b)(1)(iv) as referenced by 40 CFR 63.1410)
- iv. Where any delay of repair is utilized pursuant to 40 CFR 63.1024(d), report that delay of repair has occurred and report the number of instances of delay of repair. (40 CFR 63.1039(b)(2) as referenced by 40 CFR 63.1410)
- v. Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to 40 CFR 63.1025(b)(3)(i). (40 CFR 63.1039(b)(5) as referenced by 40 CFR 63.1410)

- vi. Report, if applicable, the initiation of a quality improvement program for pumps pursuant to 40 CFR 63.1035. (40 CFR 63.1039(b)(6) as referenced by 40 CFR 63.1410)

Comments

1. E12-E14, E31-E32, and E51 are not subject to the non-reactor batch process vent standards in 40 CFR 63.1407 due to emitting less than 0.25 tons per year of uncontrolled organic HAP emissions according to 40 CFR 63.1407(a)(1).
2. The Notification of Compliance Status was submitted on June 20, 2003 in accordance with 40 CFR 63.1417(e).
3. With a letter received August 20, 2004, the source requested to change the reporting dates to correspond with the Title V semiannual reporting periods. This request was granted by the District.