West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

The Chemours Company FC, LLC
Belle Plant
(Vazo/Glycolic Acid)
R30-03900001-2015 (4 of 5)

William F. Durham
Director

Issued: March 3, 2015 • Effective: March 17, 2015
Expiration: March 3, 2020 • Renewal Application Due: September 3, 2019

Permit Number: **R30-03900001-2015 (4 of 5)**
Permittee: **The Chemours Company FC, LLC**
Facility Name: **Belle Plant**
Mailing Address: **901 W. DuPont Ave.**
Belle, WV 25015

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Belle, Kanawha County, West Virginia
Facility Mailing Address:	901 W. DuPont Ave. Belle, WV 25015
Telephone Number:	304-357-1000
Type of Business Entity:	Corporation
Facility Description:	Manufacturer of various organic and agricultural chemicals. Production of "Vazo" and glycolic acid.
SIC Codes:	2869; 2879
UTM Coordinates:	451.90 km Easting • 4232.60 km Northing • Zone 17

Permit Writer: Mike Egnor

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Table of Contents

1.0 Emission Units and Active R13, R14, and R19 Permits 3

2.0 General Conditions 6

3.0 Facility-Wide Requirements 15

4.0 Source-Specific Requirements [Vazo] 22

5.0 Source-Specific Requirements [Glycolic Acid] 46

ATTACHMENT A (Formaldehyde Limits) 59

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Vazo					
V111	213.001	Tank (No. 1)	1989	> 20,000 gal	
V112	213.001	Tank (No. 3)	1989	> 20,000 gal	
V004	213.001	Tank	1980	< 20,000 gal	
V008	N/A	Tank	1987	< 20,000 gal	
V009	N/A	Tank	2001	< 20,000 gal	
V010	N/A	Tank	1993	< 20,000 gal	
V014	N/A	Tank		< 20,000 gal	
V015	N/A	Tank	1991	<20,000 gal	
V001	215.001	Loading Facility			
V016	213.007	Packaging Unit			V007
V006	213.006	Dryer		1,000 lbs/hr	
V017	N/A	Tank	1976	< 20,000 gal	
V005	217.003	Column			V002, V003
V018	217.003	Vacuum Filter			V002, V003
V019	217.003	Tank	1991	< 20,000 gal	V002, V003
V021	121.001	Tank	2003	< 20,000 gal	SB001
V022	121.001	Tank	1990	< 20,000 gal	SB001
V023	217.003	Tank (Reactor No. 2)	2003	< 20,000 gal	V002, V003
V024	217.003	Tank	1996	< 20,000 gal	V002, V003
V025	N/A	Tank	2001	< 20,000 gal	
V026	N/A	Tank	2001	< 20,000 gal	
V027	N/A	Tank	1987	< 20,000 gal	
V028	N/A	Refrigeration Unit	1992		
V029	N/A	Extruder			
V030	N/A	Tank	1963	< 20,000 gal	V002, V003
V031	N/A	Tank	1963	< 20,000 gal	V002, V003

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V032	N/A	Tank	2006	< 20,000 gal	
Control Devices					
V007	213.007	Dust Collector	1973	0.2 lbs/hr	
V002	217.003	Thermal Oxidizer (3.0 MMBTU/hr Natural Gas)	1991	8,500 lbs/hr	
V003	217.003	Column	1991		
SB001	121.001	Flare (4.4 MMBTU/hr Natural Gas)		28,000 lbs/hr	
Glycolic Acid					
G003	252.003	Tank (No. 33)	2002	< 20,000 gal	
G004	N/A	Loading Facility			
G005	N/A	Tank	1982	< 20,000 gal	
G006	251.040	Tank	1944	< 20,000 gal	G040
G007	251.040	Tank	1949	< 20,000 gal	G040
G008	N/A	High pressure pump	1990		
G009	251.040	Reactor	1937		G040
G010	251.040	Separator	1991		G040
G011	N/A	Tank	1962	> 20,000 gal	
G012	N/A	Column	1987		
G013	N/A	Tank	1979	< 20,000 gal	
G014	N/A	Column	1979		
G015	N/A	Tank	1982	< 20,000 gal	
G016	N/A	Loading Facility	1985		
G019	N/A	Loading Facility	1985		
G021	N/A	Loading Facility	1985		
G022	251.020	Column	1999		G020
G023	N/A	Column	1987		
G024	N/A	Tank	2003	< 20,000 gal	
G017	N/A	Tank (No. 5)	1985	> 20,000 gal	
G018	N/A	Tank (No. 6)	1985	> 20,000 gal	
G025	N/A	Tank	1973	< 20,000 gal	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
G026	N/A	Tank	1973	< 20,000 gal	
G027	N/A	Tank		< 20,000 gal	
G031	N/A	Heat Exchanger	Prior to 1970		G040
G032	N/A	Heat Exchanger	2005		G040
G033	N/A	Heat Exchanger	2014		G040
G034	N/A	High pressure pump	2005		G040
G035	N/A	High pressure pump	2014		G040
Control Devices					
G040	251.040	Thermal Oxidizer (6.7 MM BTU/hr)	1992	4,640 lbs/hr	
G028	251.040	Scrubber	1939		
G020	251.020	Condenser			

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1399A	12/10/2001
R13-1534B	7/17/2007

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr *or* lb/hr	Pounds per Hour
LDAR	Leak Detection and Repair
m	Thousand
MACT	Maximum Achievable Control Technology
mm	Million
mmBtu/hr	Million British Thermal Units per Hour
mmft^3/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour
NA *or* N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10µm in diameter
pph	Pounds per Hour
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. 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 and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically

identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof. **[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding. **[45CSR§30-5.3.e.3.B. and 45CSR38]**

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect. **[45CSR§30-5.1.e.]**

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege. **[45CSR§30-5.1.f.4]**

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

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

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

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

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

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

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

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

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

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

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

[40 C.F.R. 82, Subpart F]

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

3.1.9. The permitted facility shall be constructed and operated in accordance with information filed in Permit Applications R13-1051, R13-1399, R13-1399R, R13-1399A, R13-1534, R13-1534A, R13-1534B, and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, Permit No. R13-1399 -(Condition C.3.), Permit No. R13-1534 -(Condition C.3.)]

3.1.10. All chemical processing units shall be properly instrumented to alert the operator of process upsets, leaks, and other abnormal discharges of toxic air pollutants into the air and the operator shall record all such incidents and the associated emissions estimated from direct measurements of toxic air pollutant concentration and/or calculations using other process measurements.
[45CSR§27-3.4, CO-R27-91-40A (State Enforceable Only), 45CSR13, Permit No. R13-1399 -(Condition B.4.)]

3.1.11. All owners and operators subject to the requirements of this regulation shall, by application of BAT, prevent and control fugitive emissions to the air of toxic air pollutants as a result of leakage from equipment in toxic air pollutant service including but not limited to, pump seals, compressor seals, valves, sampling connections, open-ended lines, safety relief valves, and flanges. In no event shall any equipment standard, program, or work practice less stringent than required under 40CFR61, Subpart V be deemed to represent BAT for control of toxic air pollutant emissions: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such federal regulation or standard. Equipment to be used in toxic air pollutant service installed after the effective date of this regulation shall, to the maximum extent possible, be designed and operated so as to prevent leaks of toxic air pollutants.
[45CSR§27-4.1, CO-R27-91-40A (State Enforceable Only), 45CSR13, Permit No. R13-1399 -(Condition B.4.)]

3.1.12. Owners and operators of chemical processing units or facilities subject to the requirements of this rule shall prevent and control working and filling losses of toxic air pollutants from tanks by routing such tank emissions

to BAT control devices. The Director may approve the use of floating roof storage tanks as BAT, provided that such tanks are designed and operated in a manner which minimizes toxic air pollutant emissions taking into consideration the toxic air pollutant emission rate, tank size, and control efficiency associated with such tanks. On a case-by-case basis, the Director may exempt very small process or storage tanks or tanks storing material mixtures containing low mass fractions of toxic air pollutants from the BAT requirements taking into consideration the actual level of emissions control and/or the toxic air pollutant emission rate from the tank. **[45CSR§27-5.1, CO-R27-91-40A (State Enforceable Only), 45CSR13, Permit No. R13-1399 -(Condition B.4.)]**

3.1.13. Written records shall be maintained that identify all pumps, compressors, pressure relief valves, valves, sampling connections, open-ended lines, and flanges of a chemical processing unit that are in toxic air pollutant service. These records shall record the results of all monitoring and inspections, emissions control measures applied and the nature, timing, and results of repair efforts.
[45CSR§27-10.3, CO-R27-91-40A (State Enforceable Only), 45CSR13, Permit No. R13-1399 -(Condition B.4.)]

3.1.14. The emission to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following amounts shall be reported to the Director or his authorized representative not later than 24-hours after the chemical processing unit owner/operator has knowledge of such emission:

10.4.a. For ethylene oxide, and vinyl chloride, one (1) pound

10.4.b. For acrylonitrile and butadiene, ten (10) pounds

10.4.c. For all other toxic air pollutants, fifty (50) pounds.

The owner or operator shall file a written report with the Director stating the details of all such incidents resulting in the emission of more than fifty (50) pounds of any toxic air pollutant within seven (7) days of the occurrence. The owner/operator shall submit to the Director, at his request, records of all abnormal toxic air pollutant discharges to the air.
[45CSR§27-10.4, CO-R27-91-40A (State Enforceable Only), 45CSR13, Permit No. R13-1399 -(Condition B.4.)]

3.2. Monitoring Requirements

3.2.1. N/A

3.3. Testing Requirements

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

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

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

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

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

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

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

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

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

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

3.5. Reporting Requirements

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

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

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

If to the DAQ:	**If to the US EPA:**
Director WVDEP Division of Air Quality 601 57th Street SE Charleston, WV 25304 Phone: 304/926-0475 FAX: 304/926-0478	Associate Director Office of Air Enforcement and Compliance Assistance (3AP20) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029

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

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. **[45CSR§30-5.3.e.]**

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A.]**

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

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

4. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

5. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

6. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

7. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

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

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

3.6. Compliance Plan

3.6.1. N/A

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

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

None

4.0 Source-Specific Requirements [Vazo]

4.1. Limitations and Standards

4.1.1. Emissions to the atmosphere from the permitted process, which includes the mini-scale unit, shall not exceed the hourly and annual limitations given below:

Source	Pollutant	Maximum Potential Emissions, lb/hr			Maximum Allowable Emissions, lb/hr		
		Vazo 52	Vazo 64	Vazo 67	Vazo 52	Vazo 64	Vazo 67
Incinerator/ Scrubber[b,c]	Carbon Tetrachloride	1.7	15.1	12.9	0.02	0.15	0.13
	Chlorine	2.0[a]	2.1[a]	2.0[a]	2.0	2.0	2.0
	Chloroform	35.4	22.2	23.6	0.35	0.22	0.24
	Hydrochloric Acid	40.9[a]	41.1[a]	40.2[a]	0.20	0.21	020
	NO_x	0.53[a]	0.53[a]	0.53[a]	0.53	0.53	0.53
Dryer	Carbon Tetrachloride	0.05	0.01	0.2	0.05	0.01	0.2
	Chloroform	0.04	0.03	1.8	0.04	0.03	1.8
Wastewater (25% Biotreatment)	Carbon Tetrachloride	0.1	1.0	1.9	0.01	0.1	0.2
	Chloroform	4.1	10.5	10.8	1.0	2.6	2.7
Filter Hood	Carbon Tetrachloride	0.2	0.2	0.2	Neg.	Neg.	Neg.
	Chloroform	3.6	0.3	1.0	Neg.	Neg.	Neg.

Emission Point ID	Pollutant	Base Line Data	Actual Emissions (tpy)	Determination Method	Allowable Emissions (lb/hr)	Allowable Emissions[e] (lb/hr)	Proposed Determination Method
213 (Vazo 67)	Carbon Tetrachloride	d	23.4	f	0.5	1.56	g and h
	Chloroform	d	44.8	f	5.8	3.02	g and h

a These pollutants are formed during combustion.

b Ninety-nine percent destruction of chloroform and carbon tetrachloride across the incinerator. Ninety-nine percent removal of hydrochloric acid across the scrubber.

c Maximum potential emissions to and maximum allowable emissions from the incinerator/scrubber during operation of the mini-scale unit and Vazo 52, Vazo 64, or Vazo 67 shall not exceed the limitations for the respective vazo.

d Based on 365 days of operation for Vazo 67. Vazo 52, and Vazo 64 are also manufactured in the process. These products are produced in smaller amounts and result in lower emissions of chloroform and carbon tetrachloride than Vazo 67. A fourth product, Vazo 88, is also manufactured by this production unit, but differs from the others in that no chlorocarbons are generated in the process.

e Ninety-three percent overall chlorocarbon reduction based on the average of data from laboratory stripping tests which gave unexpectedly variable results.

f Emissions of chloroform and carbon tetrachloride from the process based on engineering calculations and analysis of selected streams and vents.

g Chlorocarbon levels in Vazo process streams are determined by DuPont method No. V1500.165.BE.

h Annual emissions are to be determined based on dryer and wastewater monitoring data and actual production rates.

[CO-R27-91-40A – (Condition III.17.) (State Enforceable Only), 45CSR13, Permit No. R13-1399 - (Condition A.1.) (121.001, 217.003, 213.006)]

4.1.2. The thermal oxidizer (V002) shall be operated at a minimum temperature of 1,350°F during all periods of Vazo process operations.
[45CSR34, 40CFR§63.2450(e), 45CSR13, Permit No. R13-1399 -(Condition A.2.) (217.003)]

4.1.3. No person shall cause, suffer, allow or permit particulate matter to be discharged from the thermal oxidizer (V002) into the open air in excess of 23.1 lbs/hr or to be discharged from the flare (SB001) into the open air in excess of 38.1 lbs/hr.
[45CSR§6-4.1. (217.003, 121.001)]

4.1.4. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR§6-4.3. (217.003, 121.001)]

4.1.5. The provisions of Condition 4.1.4 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.
[45CSR§6-4.4. (217.003, 121.001)]

4.1.6. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR§6-4.5. (217.003, 121.001)]

4.1.7. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emissions of objectionable odors.
[45CSR§6-4.6. (217.003, 121.001)]

4.1.8. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20%) percent opacity.
[45CSR§7-3.1. (213.007)]

4.1.9. The provisions of Condition 4.1.8 above shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40%) percent opacity for any period or periods aggregating no more than five (5) minutes in any (60)minute period.
[45CSR§7-3.2. (213.007)]

4.1.10. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1. (213.007)]

4.1.11. The Permittee shall comply with the following limitations:

Emission Unit ID	Emission Point ID	Process Unit	Maximum Theoretical Emissions (MTE) of the Source (lbs/hr)	Control Device Description	Efficiency of Control Device	Maximum Allowable Hours of Operations (hrs/yr)	Maximum Allowable VOC Emissions	
							lb/hr	TPY
213.010	121.001	AN Stripper	9.76	FL	98%	8760	0.20	0.855
213.002	217.003	Slurry Hut	44.0	INC	99%	8760	0.44	1.93
213.003		Filter Hood						
213.004		Filter Vacuum Pump						
213.001		Oxidizer						
217.005		Stripping Column						
217.006		Stripper Hut						
217.007		Seal Pot						

FL – Flare
INC – Incinerator

[CO-R21-97-31, Condition III.1. (121.001, 217.003) (State Enforceable Only)]

4.1.12. The Permittee shall operate all emission control equipment at all times when the production unit is in operation, excepting only periods of emergency repairs for the control equipment and unanticipated control equipment failure for reasons beyond the reasonable control of the Permittee. In the event that the control equipment is inoperable, the production unit shall be shut down as expeditiously as possible. Recognizing the reactive nature of the production units products, however, in-process material will continue to be processed. The Permittee shall not begin operation of the production unit when the control equipment is not in operation without being granted a variance.
[CO-R27-91-40A – (Condition IV.10.) (State Enforceable Only)]

4.1.13. For all equipment that is in organic HAP service, the Permittee shall comply with the requirements of 40 CFR 63 Subpart H and the requirements referenced therein, except as specified in (b) and (d) below:

(b) If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.

(1) The requirements for pressure testing in 40CFR§63.179(b) or 40CFR§63.1036(b) may be applied to all processes, not just batch processes.

(2) For the purposes of this subpart, pressure testing for leaks in accordance with 40CFR§63.179(b) or 40CFR§63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under 40CFR§63.1022(b)(1) or 40CFR§63.181(b)(1)(i).

(4) For connectors in gas/vapor and light liquid service at an existing source, you may elect to comply with the requirements in 40CFR§63.169 or 40CFR§63.1029 for connectors in heavy liquid service, including all associated recordkeeping and reporting requirements, rather than the requirements of 40CFR§63.174 or 40CFR§63.1027.

(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in 40CFR§63.1026(b)(2)(i) through (iii) or 40CFR§63.163(b)(2).

(d) The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart.
[45CSR34; 40CFR§§63.2480 (a), (b), and (d)]

4.1.14. For each Group 1 Continuous Process Vent not using a flare as a control device, the Permittee shall reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare), as well as complying with the following:

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40CFR§63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of 40CFR§63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in 40CFR§63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When 40CFR§63.115(d) refers to "emission reductions specified in 40CFR§63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of 40CFR§63.982(e) and the requirements referenced therein, except as specified in 40CFR§63.2450 and paragraph (c)(1) of this section.

(1) When 40CFR§63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

[45CSR34; 40CFR§§63.2455 (a), (b), and (c) (217.003)]

4.1.15. For each Group 1 Continuous Process Vent using a flare as a control device, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare, and also comply with the following:

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40CFR§63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of 40CFR§63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in 40CFR§63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When 40CFR§63.115(d) refers to "emission reductions specified in 40CFR§63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of 40CFR§63.982(e) and the requirements referenced therein, except as specified in 40CFR§63.2450 and paragraph (c)(1) of this section.

(1) When 40CFR§63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

[45CSR34; 40CFR§§63.2455 (a), (b), and (c) (121.001)]

4.1.16. For each Group 1 Batch Process Vent, the Permittee shall reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare), as well as complying with the following:

(b) *Group status.* If a process has batch process vents, as defined in 40CFR§63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in 40CFR §63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (7) of this section.

(1) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, you must use the procedures in 40CFR§63.1257(d)(2)(i)(C)(*3*).

(2) To calculate emissions from depressurization of a vessel without a process condenser, you must use the procedures in 40CFR§63.1257(d)(2)(i)(D)(*10*).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P_{system}= absolute pressure of the receiving vessel;

P_i= partial pressure of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

P_j= partial pressure of condensables (including HAP) determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

MW_{HAP}= molecular weight of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(4) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, you must use the procedures in 40CFR§63.1257(d)(3)(i)(B), except as specified in paragraphs (b)(4)(i) through (vii) of this section.

(i) You must determine the flowrate of gas (or volume of gas), partial pressures of condensables, temperature (T), and HAP molecular weight (MW_{HAP}) at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(ii) You must assume that all of the components contained in the condenser exit vent stream are in equilibrium with the same components in the exit condensate stream (except for noncondensables).

(iii) You must perform a material balance for each component.

(iv) For the emissions from gas evolution, the term for time, t, must be used in Equation 12 to 40 CFR part 63, subpart GGG.

(v) Emissions from empty vessel purging shall be calculated using Equation 36 to 40 CFR part 63, subpart GGG and the exit temperature and exit pressure conditions of the condenser or the conditions of the dedicated receiver.

(vi) You must conduct an engineering assessment as specified in 40CFR§63.1257(d)(2)(ii) for each emission episode that is not due to vapor displacement, purging, heating, depressurization, vacuum operations, gas evolution, air drying, or empty vessel purging. The requirements of paragraphs (b)(3) through (4) of this section shall apply.

(vii) You may elect to conduct an engineering assessment if you can demonstrate to the Administrator that the methods in 40CFR§63.1257(d)(3)(i)(B) are not appropriate.

(5) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in paragraph (b)(5)(i), (ii), or (iii) of this section.

(i) If you comply with the alternative standard specified in 40CFR§63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in 40CFR§63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in 40CFR§63.1257(b)(8)(ii)(C).

(iii) If you comply with an emission limit using a flare that meets the requirements specified in §63.987.

(6) You may change from Group 2 to Group 1 in accordance with either paragraph (b)(6)(i) or (ii) of this section. You must comply with the requirements of this section and submit the test report in the next Compliance report.

(i) You may switch at any time after operating as Group 2 for at least 1 year so that you can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. You may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in your next compliance report in accordance with 40CFR§63.2520(e)(10)(i).

(ii) If the conditions in paragraph (b)(6)(i) of this section are not applicable, you must provide a 60-day advance notice in accordance with 40CFR§63.2520(e)(10)(ii) before switching.

(7) As an alternative to determining the uncontrolled organic HAP emissions as specified in 40CFR§63.1257(d)(2)(i) and (ii), you may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000 lb/yr. You must provide data and supporting rationale in your notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. You must keep records of the non-reactive organic HAP usage as specified in 40CFR§63.2525(e)(2) and include information in compliance reports as specified in 40CFR§63.2520(e)(5)(iv).

(c) Exceptions to the requirements in subparts SS and WW of this part 63 are specified in paragraphs (c)(1) through (9) of this section.

(1) *Process condensers.* Process condensers, as defined in 40CFR§63.2550(i), are not considered to be control devices for batch process vents. You must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.

(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to this subpart FFFF by using a flare that meets the requirements of 40CFR§63.987.

(ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to 40CFR§63.1257(b)(8) instead of under normal operating conditions as specified in §63.7(e)(1). The requirements in 40CFR§63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of this subpart FFFF, references in 40CFR§63.997(b)(1) to "methods specified in §63.997(e)" include the methods specified in 40CFR§63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation to demonstrate initial compliance with a percent reduction requirement for a condenser, you may determine controlled emissions using the procedures specified in 40CFR§63.1257(d)(3)(i)(B) and paragraphs (b)(3) through (4) of this section.

(iv) When 40CFR§63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in 40CFR§63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in 40CFR§63.1257(d)(3)(iii)(B) to the alternative standard in §63.1254(c) means §63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by §63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to 40CFR§63.2525(c).

(4) *Averaging periods.* As an alternative to the requirement for daily averages in 40CFR§63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m \left(\frac{Q_s + Q_a}{Q_a} \right) \qquad (Eq.\ 1)$$

Where:

C_a= corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m= actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Q_a= total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Q_s= total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

(8) *Terminology.* When the term "storage vessel" is used in subpart WW of this part 63, the term "process tank," as defined in 40CFR§63.2550(i), applies for the purposes of this section.

(9) *Requirements for a biofilter.* If you use a biofilter to meet either the 95 percent reduction requirement or outlet concentration requirement specified in Table 2 to this subpart, you must meet the requirements specified in paragraphs (c)(9)(i) through (iv) of this section.

(i) *Operational requirements.* The biofilter must be operated at all times when emissions are vented to it.

(ii) *Performance tests.* To demonstrate initial compliance, you must conduct a performance test according to the procedures in 40CFR§63.997 and paragraphs (c)(9)(ii)(A) through (D) of this section. The design evaluation option for small control devices is not applicable if you use a biofilter.

(A) Keep up-to-date, readily accessible continuous records of either the biofilter bed temperature averaged over the full period of the performance test or the outlet total organic HAP or TOC concentration averaged over the full period of the performance test. Include these data in your notification of compliance status report as required by 40CFR§63.999(b)(3)(ii).

(B) Record either the percent reduction of total organic HAP achieved by the biofilter determined as specified in 40CFR§63.997(e)(2)(iv) or the concentration of TOC or total organic HAP determined as specified in 40CFR§63.997(e)(2)(iii) at the outlet of the biofilter, as applicable.

(C) If you monitor the biofilter bed temperature, you may elect to use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15 minute (or shorter) averages for purposes of establishing operating limits for the biofilter. If you use multiple thermocouples, include your rationale for their site selection in your notification of compliance status report.

(D) Submit a performance test report as specified in 40CFR§63.999(a)(2)(i) and (ii). Include the records from paragraph (c)(9)(ii)(B) of this section in your performance test report.

(iii) *Monitoring requirements.* Use either a biofilter bed temperature monitoring device (or multiple devices) capable of providing a continuous record or an organic monitoring device capable of providing a continuous record. Keep records of temperature or other parameter monitoring results as specified in 40CFR§63.998(b) and (c), as applicable. General requirements for monitoring are contained in 40CFR§63.996. If you monitor temperature, the operating temperature range must be based on only the temperatures measured during the performance test; these data may not be supplemented by engineering assessments or manufacturer's recommendations as otherwise allowed in 40CFR§63.999(b)(3)(ii)(A). If you establish the operating range (minimum and maximum temperatures) using data from previous performance tests in accordance with 40CFR§63.996(c)(6), replacement of the biofilter media with the same type of media is not considered a process change under 40CFR§63.997(b)(1). You may expand your biofilter bed temperature operating range by conducting a repeat performance test that demonstrates compliance with the 95 percent reduction requirement or outlet concentration limit, as applicable.

(iv) *Repeat performance tests.* You must conduct a repeat performance test using the applicable methods specified in 40CFR§63.997 within 2 years following the previous performance test and within 150 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.

[45CSR34; 40CFR§§63.2460 (a), (b), and (c) (217.003)]

4.1.17. For each Halogenated Group 1 Continuous Process Vent stream, the Permittee shall either:

i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv; or

ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

The Permittee shall also comply with the following:

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40CFR§63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of 40CFR§63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in 40CFR§63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When 40CFR§63.115(d) refers to "emission reductions specified in 40CFR§63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of 40CFR§63.982(e) and the requirements referenced therein, except as specified in 40CFR§63.2450 and paragraph (c)(1) of this section.

(1) When 40CFR§63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

[45CSR34; 40CFR§§63.2455 (a), (b), and (c) (121.001)]

4.1.18. For each Halogenated Group 1 Batch Process Vent, the Permittee shall either:

a. Use a halogen reduction device after the combustion device to either:
   i. reduce emissions of hydrogen halide and halogen HAP by ≥99 percent; or
   ii. reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kg/hr; or
   iii. reduce overall emissions of hydrogen halide and halogen HAP to a concentration of ≤20 ppmv.

Or

b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration of ≤20 ppmv.

The Permittee shall also comply with the following:

(b) *Group status.* If a process has batch process vents, as defined in 40CFR§63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in 40CFR §63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (7) of this section.

(1) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, you must use the procedures in 40CFR§63.1257(d)(2)(i)(C)(*3*).

(2) To calculate emissions from depressurization of a vessel without a process condenser, you must use the procedures in 40CFR§63.1257(d)(2)(i)(D)(*10*).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P_{system}= absolute pressure of the receiving vessel;

P_i= partial pressure of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

P_j= partial pressure of condensables (including HAP) determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

MW_{HAP}= molecular weight of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(4) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, you must use the procedures in 40CFR§63.1257(d)(3)(i)(B), except as specified in paragraphs (b)(4)(i) through (vii) of this section.

(i) You must determine the flowrate of gas (or volume of gas), partial pressures of condensables, temperature (T), and HAP molecular weight (MW_{HAP}) at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(ii) You must assume that all of the components contained in the condenser exit vent stream are in equilibrium with the same components in the exit condensate stream (except for noncondensables).

(iii) You must perform a material balance for each component.

(iv) For the emissions from gas evolution, the term for time, t, must be used in Equation 12 to 40 CFR part 63, subpart GGG.

(v) Emissions from empty vessel purging shall be calculated using Equation 36 to 40 CFR part 63, subpart GGG and the exit temperature and exit pressure conditions of the condenser or the conditions of the dedicated receiver.

(vi) You must conduct an engineering assessment as specified in 40CFR§63.1257(d)(2)(ii) for each emission episode that is not due to vapor displacement, purging, heating, depressurization, vacuum operations, gas evolution, air drying, or empty vessel purging. The requirements of paragraphs (b)(3) through (4) of this section shall apply.

(vii) You may elect to conduct an engineering assessment if you can demonstrate to the Administrator that the methods in 40CFR§63.1257(d)(3)(i)(B) are not appropriate.

(5) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in paragraph (b)(5)(i), (ii), or (iii) of this section.

(i) If you comply with the alternative standard specified in 40CFR§63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in 40CFR§63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in 40CFR§63.1257(b)(8)(ii)(C).

(iii) If you comply with an emission limit using a flare that meets the requirements specified in §63.987.

(6) You may change from Group 2 to Group 1 in accordance with either paragraph (b)(6)(i) or (ii) of this section. You must comply with the requirements of this section and submit the test report in the next Compliance report.

(i) You may switch at any time after operating as Group 2 for at least 1 year so that you can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. You may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in your next compliance report in accordance with 40CFR§63.2520(e)(10)(i).

(ii) If the conditions in paragraph (b)(6)(i) of this section are not applicable, you must provide a 60-day advance notice in accordance with 40CFR§63.2520(e)(10)(ii) before switching.

(7) As an alternative to determining the uncontrolled organic HAP emissions as specified in 40CFR§63.1257(d)(2)(i) and (ii), you may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000 lb/yr. You must provide data and supporting rationale in your notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. You must keep records of the non-reactive organic HAP usage as specified in 40CFR§63.2525(e)(2) and include information in compliance reports as specified in 40CFR§63.2520(e)(5)(iv).

(c) Exceptions to the requirements in subparts SS and WW of this part 63 are specified in paragraphs (c)(1) through (9) of this section.

(1) *Process condensers.* Process condensers, as defined in 40CFR§63.2550(i), are not considered to be control devices for batch process vents. You must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.

(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to this subpart FFFF by using a flare that meets the requirements of 40CFR§63.987.

(ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to 40CFR§63.1257(b)(8) instead of under normal operating conditions as specified in §63.7(e)(1). The requirements in 40CFR§63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of this subpart FFFF, references in 40CFR§63.997(b)(1) to "methods specified in §63.997(e)" include the methods specified in 40CFR§63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation to demonstrate initial compliance with a percent reduction requirement for a condenser, you may determine controlled emissions using the procedures specified in 40CFR§63.1257(d)(3)(i)(B) and paragraphs (b)(3) through (4) of this section.

(iv) When 40CFR§63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in 40CFR§63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in 40CFR§63.1257(d)(3)(iii)(B) to the alternative standard in §63.1254(c) means §63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by §63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to 40CFR§63.2525(c).

(4) *Averaging periods.* As an alternative to the requirement for daily averages in 40CFR§63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m \left(\frac{Q_s + Q_a}{Q_a} \right) \qquad (Eq.\ 1)$$

Where:

C_a= corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m= actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Q_a= total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Q_s= total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

(8) *Terminology.* When the term "storage vessel" is used in subpart WW of this part 63, the term "process tank," as defined in 40CFR§63.2550(i), applies for the purposes of this section.

(9) *Requirements for a biofilter.* If you use a biofilter to meet either the 95 percent reduction requirement or outlet concentration requirement specified in Table 2 to this subpart, you must meet the requirements specified in paragraphs (c)(9)(i) through (iv) of this section.

(i) *Operational requirements.* The biofilter must be operated at all times when emissions are vented to it.

(ii) *Performance tests.* To demonstrate initial compliance, you must conduct a performance test according to the procedures in 40CFR§63.997 and paragraphs (c)(9)(ii)(A) through (D) of this section. The design evaluation option for small control devices is not applicable if you use a biofilter.

(A) Keep up-to-date, readily accessible continuous records of either the biofilter bed temperature averaged over the full period of the performance test or the outlet total organic HAP or TOC concentration averaged over the full period of the performance test. Include these data in your notification of compliance status report as required by 40CFR§63.999(b)(3)(ii).

(B) Record either the percent reduction of total organic HAP achieved by the biofilter determined as specified in 40CFR§63.997(e)(2)(iv) or the concentration of TOC or total organic HAP determined as specified in 40CFR§63.997(e)(2)(iii) at the outlet of the biofilter, as applicable.

(C) If you monitor the biofilter bed temperature, you may elect to use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15 minute (or shorter) averages for purposes of establishing operating limits for the biofilter. If you use multiple thermocouples, include your rationale for their site selection in your notification of compliance status report.

(D) Submit a performance test report as specified in 40CFR§63.999(a)(2)(i) and (ii). Include the records from paragraph (c)(9)(ii)(B) of this section in your performance test report.

(iii) *Monitoring requirements.* Use either a biofilter bed temperature monitoring device (or multiple devices) capable of providing a continuous record or an organic monitoring device capable of providing a continuous record. Keep records of temperature or other parameter monitoring results as specified in 40CFR§63.998(b) and (c), as applicable. General requirements for monitoring are contained in 40CFR§63.996. If you monitor temperature, the operating temperature range must be based on only the temperatures measured during the performance test; these data may not be supplemented by engineering assessments or manufacturer's recommendations as otherwise allowed in 40CFR§63.999(b)(3)(ii)(A). If you establish the operating range (minimum and maximum temperatures) using data from previous performance tests in accordance with 40CFR§63.996(c)(6), replacement of the biofilter media with the same type of media is not considered a process change under 40CFR§63.997(b)(1). You may expand your biofilter bed temperature operating range by conducting a repeat performance test that demonstrates compliance with the 95 percent reduction requirement or outlet concentration limit, as applicable.

(iv) *Repeat performance tests.* You must conduct a repeat performance test using the applicable methods specified in 40CFR§63.997 within 2 years following the previous performance test and within 150 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.

[45CSR34; 40CFR§§63.2460 (a), (b), and (c) (217.003)]

4.2. Monitoring Requirements

4.2.1. Monitoring requirements to show compliance with the requirements of Conditions 4.1.1 and 4.1.11 shall be done as follows:

II. Other Sampling and Analysis

Sampling	Frequency	Constituent	Analytical Method
Wastewater From Stripper to WTP	b	CCl_3, CCl_4	Dupont Method V1500.165.BE
Product to Dryer	b	CCl_3, CCl_4	
Filter Hood	c	CCl_3, CCl_4	

III. Parameter Monitoring

The following parameters will be monitored during the performance testing and sampling period. The data shall be reported along with the results of the performance test.

Parameter	Frequency
Afterburner Temperature	Continuous
Afterburner Air Flow	
Liquid Flow to HCl Scrubber	
HCl Scrubber Discharge Flow Rate	
Wastewater Flow Rate From Stripper	
Liquid Inlet Temperature to Stripper	
Stripper Pressure Drop	
HCl Scrubber Pressure Drop	2 per day
Air Flow Rate to Stripper	

a Shall be conducted while producing Vazo™ 67

b DAQ has determined that sufficient sampling has been conducted in order to arrive at a normalized emission factor for each product type. Refer to Table D in this Condition.

c Filter hood is designed for 100% capture of emissions. The process shuts down if the exhauster fails.

Table D: Emission Factor Summary for Vazo Filtrate and Filter Cake				
	Filter Cake		Filtrate	
	Chloroform	Carbon Tetrachloride	Chloroform	Carbon Tetrachloride
Product	(ppm)	(ppm)	(ppm)	(ppm)
V52	17	1.65	0.52	0.01
V64	11.9	7.2	1.6	0.95
V67	50.9	50.4	1.95	0.59

[CO-R27-91-40A (Condition III.18.) (State Enforceable Only), 45CSR13, Permit No. R13-1399 - (Condition A.3.) (121.001, 213.006, 217.003)]

4.2.2. The permittee shall continuously monitor the thermal oxidizer (V002) temperature during all Vazo incinerator operation.
[45CSR13, Permit No. R13-1399 -(Condition A.2.) (217.003)]

4.2.3. At least monthly, visual emission checks of each emission point subject to a 45CSR7 opacity limit shall be conducted. For units emitting directly into the open air from points other than a stack outlet, visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an evaluation as outlined in 45CSR§7A-2.1.a,b within twenty-four (24) hours. However, a 45CSR§7A-2.1.a,b evaluation shall not be required more than once per month per emission unit. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c. and 45CSR§7A-2.1a,b. (213.007)]

4.2.4. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For the purpose of these checks, excess visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct a 40 CFR 60, Appendix A, Method 9 evaluation within twenty-four (24) hours. A Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c. (217.003)]

4.2.5. Compliance with the emissions limits set forth in Condition 4.1.11 shall be demonstrated by test or monitoring data, approved emission factors, material balances, and/or representative calculations in accordance with 45 CSR21.
[CO-R21-97-31, Condition III.1. (State Enforceable Only)]

4.2.6. At least monthly, visual emission checks for the flare (SB001) shall be conducted. For the purpose of these checks, excess visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If no visible emissions are noted during four consecutive monthly observations period, visual emissions may be conducted quarterly commencing with the next calendar quarter. If no visible emissions are noted through four consecutive calendar quarters, visual checks may be conducted semiannually. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct a 40 CFR 60, Appendix A, Method 9 evaluation within twenty-four (24) hours and restart monthly visual emission checks. A Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c (121.001)]

4.2.7. The permittee shall provide continuous monitoring of the flare flame presence. The temperature set-point of the flare interlock switch shall be 550°F or higher.
[45CSR34, 40CFR§63.2450(f), 45CSR§30-5.1.c (121.001)]

4.2.8. To show compliance with the Halogenated Group 1 Continuous Process and Batch Vent Standards, as given in Conditions 4.1.17 and 4.1.18, the Permittee shall maintain influent water (liquor) flow rate of the packed bed water absorber at a minimum of 70°C, and a density of less than or equal to 1.015 g/cc as established in the Notification of Compliance Status (NOCS) Report dated October 7, 2008.
[45CSR34, 40CFR§63.2450(e) (217.003)]

4.3. Testing Requirements

4.3.1. Any performance testing to show compliance with the requirements of Condition 4.1.1 shall be done as follows:

Sampling Location	Duration	Constituent	Analytical Method
Afterburner Inlet	8-hr	VOC	EPA Method 25A
Scrubber Outlet	8-hr	VOC	EPA Method 25A
		HCl/Cl_2	EPA Method 0050

The testing shall only be conducted while producing Vazo 67.
[CO-R27-91-40A (Condition III.18.) (State Enforceable Only), 45CSR13, Permit No. R13-1399 - (Condition A.3.) (217.003)]

4.4. Recordkeeping Requirements

4.4.1. The permittee shall record and maintain all records and charts of the scrubber (V003) and incinerator (V002) for the most recent three (3) year period and shall make such records available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.
[45CSR13, Permit No. R13-1399 -(Condition B.1.) (217.003)]

4.4.2. Compliance with the particulate matter limits established in Condition 4.1.3 for the thermal oxidizer (V002) and flare (SB001) shall be demonstrated through as follows:

i. Demonstrate that natural gas was used as the only fuel

ii. Continual compliance shall be demonstrated by maintaining records of fuel usage. Such records shall be maintained on site and shall be made available to the Secretary or his duly authorized representative upon request

[45CSR§30-5.1.c. (217.003, 121.001)]

4.4.3. The Permittee shall keep the records specified in paragraphs (a) through (k) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in 40CFR§63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in paragraph (e)(2), (3), or (4) of this section, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in paragraph (e)(1) of this section.

(1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in paragraph (e)(1)(i), (ii), or (iii) of this section.

(i) The MCPU does not process, use, or generate HAP.

(ii) You control the Group 2 batch process vents using a flare that meets the requirements of 40CFR §63.987.

(iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.

(2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in 40CFR §63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.

(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.

(4) If you meet none of the conditions specified in paragraphs (e)(1) through (3) of this section, you must keep records of the information specified in paragraphs (e)(4)(i) through (iv) of this section.

(i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.

(ii) A record of whether each batch operated was considered a standard batch.

(iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with 40CFR §63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in 40CFR §63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by 40CFR §63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.,* identify the overlapping equipment between process units) required by 40CFR §63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by 40CFR §63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by 40CFR §63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by 40CFR §63.2535(l)(2)(iv).

(j) In the SSMP required by 40CFR §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

[45CSR34; 40CFR§§63.2525(a-k)]

4.5. Reporting Requirements

4.5.1. The permittee shall report Vazo process emissions to the Division of Air Quality as requested by the Director, but no less than yearly. The permittee shall report and certify Vazo emissions within thirty (30) days following the end of each calendar year.
[45CSR13, Permit No. R13-1399 -(Condition B.2.)]

4.5.2. **40CFR63, Subpart FFFF Requirements for Group 2 Emission Points with a TRE index value greater than 1.9.** If a Group 2 emission point becomes a Group 1 emission point after the compliance date for the affected source, the emission point must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
[45CSR34; 40CFR§63.2445(d)]

4.5.3. **40CFR63, Subpart FFFF Requirements for Notification of Process Change.** Except as specified in 4.5.3.2 below, whenever a process change is made or any change to the information submitted in the notification of compliance status report or a previous compliance report that is not within the scope of an existing operating

scenario, the change must be documented in the compliance report. A process change does not include moving within a range of conditions identified in the standard batch and a nonstandard batch does not constitute a process change.

4.5.3.1 The notification must include all of the following information:

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under 40CFR§63.2520(d).

(C) Information required by the notification of compliance status report under 40CFR§63.2520(d) for changes involving the addition of processes or equipment at the affected source.

4.5.3.2 You must submit a report 60 days before the scheduled implementation date of any of the changes identified below:

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in 40CFR§63.2460(b)(6)(i).

[45CSR34; 40CFR§63.2520(e)(10)]

4.5.4. (a) You must submit all of the notifications in 40CFR§§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in 40CFR §63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in 40CFR63 Subpart FFFF Table 2, you must also submit the test plan required by 40CFR §63.7(c) and the emission profile with the notification of the performance test.

[45CSR34; 40CFR§§63.2515 (a) and (c)]

4.5.5. The reporting timeline requirements for the compliance reports is as follows:

Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.

For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40CFR§§63.2520(b)(1) through (4).

[45CSR34; 40CFR§§63.2520(b)(3), (4), and (5)]

These compliance reports must include the following information specified in paragraphs (1) through (10) below:

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in 40CFR§63.2550, according to paragraphs (5)(i), (ii), (iii), and (iv) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (5)(iii)(A) through (L) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in 40CFR§63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by 40CFR §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in 40CFR §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in 40CFR §63.2525(i)(4) and records of primary product redeterminations as specified in 40CFR §63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.

(10) *Notification of process change.* (i) Except as specified in paragraph (10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under 40CFR§63.2520(d).

(C) Information required by the notification of compliance status report under 40CFR§63.2520(d) for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in 40CFR §63.2460(b)(6)(i).

[45CSR34; 40CFR§§63.2520(e)(1-10)]

4.6. Compliance Plan

N/A

5.0 Source-Specific Requirements [Glycolic Acid]

5.1. Limitations and Standards

5.1.1. Inlet air pollutant feed rates to the thermal oxidizer (G040) (representing potential uncontrolled emissions) shall not exceed the following:

Compound	lb/hr	ton/yr
Formaldehyde	455.0	1,880.0
Methanol	192.0	774.0
Formic Acid	188.0	758.0
Carbon Monoxide	539.0	2226

[45CSR13, Permit No. R13-1534 -(Condition A.1.) (251.040)]

5.1.2. Maximum allowable emissions to the atmosphere from the thermal oxidizer (G040) shall not exceed the hourly and annual limitations set forth below:

Compound	lb/hr	ton/yr
Formaldehyde	0.47	1.9
Methanol	3.84	15.5
Formic Acid	3.76	15.2
Carbon Monoxide	2.02	8.14
NO_x	1.45	5.85

[45CSR13, Permit No. R13-1534 -(Condition A.2.) (251.040)]

5.1.3. The following process source emission points shall vent directly to the thermal oxidizer (G040):

formaldehyde storage (G006)
Glycolic Acid Unit flash chamber and knock-out pot (G010)

[45CSR13, Permit No. R13-1534 -(Condition A.3.) (251.040)]

5.1.4. During those periods of time in which compounds listed under Condition 5.1.1 are being fed to the thermal oxidizer (G040), the following operational parameters or requirements shall be maintained:

A. Minimum Thermal Oxidizer Operating Temperature: 1,400°F
B. Minimum Oxygen in Thermal Oxidizer Exhaust: 3%, dry basis
C. Thermal destruction efficiencies of not less than 98% for methanol and formic acid, not less than 99% for carbon monoxide, and not less than 99.5% for formaldehyde.

[45CSR13, Permit No. R13-1534 -(Condition A.4.) (251.040)]

5.1.5. The permittee shall vent process-generated pollutants specified under Condition 5.1.1 and/or process-generated vent streams identified under Condition 5.1.3 to the thermal oxidizer (G040) at all times except in the following events:

A. In any case of thermal oxidizer failure, the process emissions shall be switched out of the thermal oxidizer and into the process vent scrubber (G028). If after twenty (20) minutes the thermal oxidizer can not be restarted, the permittee shall stop the raw material feeds (formaldehyde and carbon monoxide) into the process. Except for formaldehyde storage tank breathing losses, emissions to the atmosphere during the 20-minutes maximum period shall not exceed fifteen (15) pounds of formaldehyde and are excluded from Condition 5.1.2.

B. Breathing losses from the formaldehyde storage tank shall not exceed 0.14 lb/day during routine maintenance or unexpected failure of the thermal oxidizer.

C. During startup and shutdown of the synthesis process when organic emissions are negligible, the process shall be vented to the process vent scrubber.

D. In order for the process to resume operation without the thermal oxidizer in service, the Company must obtain a variance in accordance with 45CSR27.

[45CSR13, Permit No. R13-1534 -(Condition A.5.) (251.040)]

5.1.6. During those periods of time when inlet gas streams to the thermal oxidizer (G040) contain any of those compounds identified under Condition 5.1.1, the thermal oxidizer shall be operated at a minimum temperature of 1,400°F.
[45CSR13, Permit No. R13-1534 -(Condition A.6.) (251.040)]

5.1.7. Except as specified in Conditions 5.1.5 and 5.1.23, the permittee shall operate the thermal oxidizer in accordance with weight emission limitations and operating parameter requirements set forth under this permit any time compounds set forth under Condition 5.1.1 of this permit are being introduced to the thermal oxidizer.
[45CSR13, Permit No. R13-1534 -(Condition B.4.) (251.040)]

5.1.8. In the event of an unavoidable malfunction, as specified under Condition 5.1.5, no transfers of liquid shall be made into the formaldehyde storage tank (G006) also specified under Condition 5.1.5.
[45CSR13, Permit No. R13-1534 -(Condition B.5.) (251.040)]

5.1.9. No person shall cause, suffer, allow or permit particulate matter to be discharged from the thermal oxidizer (G040) into the open air in excess of 12.6 lbs/hr.
[45CSR§6-4.1. (251.040)]

5.1.10. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR§6-4.3, 45CSR13, Permit No. R13-1534 -(Condition B.6.) (251.040)]

5.1.11. The provisions of Condition 5.1.10 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
[45CSR§6-4.4, 45CSR13, Permit No. R13-1534 -(Condition B.6.) (251.040)]

5.1.12. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR§6-4.5, 45CSR13, Permit No. R13-1534 -(Condition B.6.) (251.040)]

5.1.13. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emissions of objectionable odors.
[45CSR§6-4.6, 45CSR13, Permit No. R13-1534 -(Condition B.6.) (251.040)]

5.1.14. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20%) percent opacity.
[45CSR§7-3.1, 45CSR13, Permit No. R13-1534 -(Condition B.7.) (251.040, 252.003)]

5.1.15. The provisions of Condition 5.1.14 above shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40%) percent opacity for any period or periods aggregating no more than five (5) minutes in any (60) minute period.
[45CSR§7-3.2, 45CSR13, Permit No. R13-1534 -(Condition B.7.) (251.040, 252.003)]

5.1.16. No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air from any storage structure associated with any manufacturing process.
[45CSR§7-3.7, 45CSR13, Permit No. R13-1534 -(Condition B.7.) (251.040, 252.003)]

5.1.17. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1. (251.040, 252.003)]

5.1.18. The Permittee shall comply with the following limitations:

Emission Unit ID	Emission Point ID	Process Unit	Maximum Theoretical Emissions (MTE) of the Source (lbs/hr)	Control Device Description	Efficiency of Control Device	Maximum Allowable Hours of Operations (hrs/yr)	Maximum Allowable VOC Emissions	
							lb/hr	TPY
G010	251.040	Flasher	989.4	INC	99.2%	8760	8.07	32.6
G006		Tank						

INC – Incinerator
[CO-R21-97-31, Condition III.1. (251.040) (State Enforceable Only)]

5.1.19. The Permittee shall comply with 45CSR§21-5.2 and 45CSR§21-9.3 with respect to all periods of non-compliance with Condition 5.1.18 resulting from unavoidable malfunctions of equipment.
[45CSR§21-5.2, 45CSR§21-9.3., CO-R21-97-31, Condition III.3. (G010 and G006) (State Enforceable Only)]

5.1.20. Emissions to the air of formaldehyde from the emission points or sources listed in Attachment A shall not exceed the limitations listed in Attachment A.
[CO-R27-92-45A(91), Condition III.2. (State Enforceable Only)]

5.1.21. The Leak Detection and Repair Program ("LDAR") shall include the provisions of Appendix B of the Announcement of Negotiated Regulation for Equipment Leaks published on March 6, 1991.
[CO-R27-92-45A(91), Condition III.3. (State Enforceable Only)]

5.1.22. If the emission of any TAP other than Methylene Chloride or Formaldehyde in the Glycolic Acid Process is discovered by the Permittee, the Permittee shall notify the Director within fifteen (15) days of such discovery. Unless a waiver is given by the Director, the Permittee shall submit a BAT Plan for control of this emission within sixty (60) days of the date of notification.
[CO-R27-92-45A(91), Condition III.4. (State Enforceable Only)]

5.1.23. The Permittee shall operate all control equipment when the production unit is in operation, except for periods of emergency repairs for the control equipment and/or control equipment failures beyond the reasonable control of the Permittee. In the event that the control equipment is inoperable, the associated production unit shall be shut down as expeditiously as possible. The Permittee shall not begin operation of the production unit when the control equipment is not in operation without being granted a variance pursuant to Section 12.1 of Regulation 27.

[CO-R27-92-45A(91), Condition IV.9. and IV.10. (State Enforceable Only)]

5.1.24. Unless otherwise expressly exempted from Leak Detection and Repair (LDAR) requirements in this Permit, the Permittee shall implement and maintain LDAR programs for the reduction of fugitive VOC emissions in all facility manufacturing process units subject to 45CSR§21-40 producing a product or products intermediate or final, in excess of 1000 megagrams (1100 tons) per year in accordance with 45CSR§21-37 or alternative procedures approved by the Director. This requirement shall apply to all units irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained within 40CFR Part 60, 61, or 63.

Exempted units include:

Glycolic Acid (excluding components subject to Regulation 27 Consent Order):

Excluded components:

G006 – Tank
G008 - High Pressure Pump
G009 – Reactor
G010 – Separator
G022 – Column
G040 – Thermal Oxidizer
G028 – Scrubber
G020 – Condenser

Although the above listed units are exempted from the frequency of testing as described in 45CSR§21-37, LDAR testing of these units will be required every three years, or upon request by the Director or his or her duly authorized representative. Waiver or rescheduling of LDAR testing every three years may be granted by the Director if a written request and justification are submitted by the Permittee. Units exempted from LDAR monitoring as required by 45CSR§21-37, are not exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verification by the facility that maintenance and repair procedures associated with approved exemptions are continued and practiced.

[CO-R21-97-31, Condition III.2. (Fugitive) (State Enforceable Only)]

5.1.25. For all equipment that is in organic HAP service, the Permittee shall comply with the requirements of 40 CFR 63 Subpart H and the requirements referenced therein, except as specified in (b) and (d) below:

(b) If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.

(1) The requirements for pressure testing in 40CFR§63.179(b) or 40CFR§63.1036(b) may be applied to all processes, not just batch processes.

(2) For the purposes of this subpart, pressure testing for leaks in accordance with 40CFR§63.179(b) or 40CFR§63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under 40CFR§63.1022(b)(1) or 40CFR§63.181(b)(1)(i).

(4) For connectors in gas/vapor and light liquid service at an existing source, you may elect to comply with the requirements in 40CFR§63.169 or 40CFR§63.1029 for connectors in heavy liquid service, including all associated recordkeeping and reporting requirements, rather than the requirements of 40CFR§63.174 or 40CFR§63.1027.

(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in 40CFR§63.1026(b)(2)(i) through (iii) or 40CFR§63.163(b)(2).

(d) The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart.
[45CSR34; 40CFR§§63.2480 (a), (b), and (d)]

5.1.26. For each Group 1 Continuous Process Vent not using a flare as a control device, the Permittee shall reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare), as well as complying with the following:

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40CFR§63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of 40CFR§63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in 40CFR§63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When 40CFR§63.115(d) refers to "emission reductions specified in 40CFR§63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of 40CFR§63.982(e) and the requirements referenced therein, except as specified in 40CFR§63.2450 and paragraph (c)(1) of this section.

(1) When 40CFR§63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

[45CSR34; 40CFR§§63.2455 (a), (b), and (c) (251.040)]

5.2. Monitoring Requirements

5.2.1. The permittee shall install, calibrate and maintain in good working condition:

A. Instrumentation to continuously monitor and record thermal oxidizer operating temperature.

B. Instrumentation to continuously monitor the flame and shut off natural gas and waste gas flows upon a loss of flame signal.

These records shall be properly maintained and be readily available to the Director, or his or her designated representative, upon request.
[45CSR13, Permit No. R13-1534 -(Condition B.1.) (251.040)]

5.2.2. The permittee shall have and follow a written operating procedure for thermal oxidizer (G040) that insures that the thermal oxidizer operates safely in an oxygen rich environment.
[45CSR13, Permit No. R13-1534 -(Condition B.2.) (251.040)]

5.2.3. The permittee shall maintain LDAR programs for the reduction of fugitive VOC emissions in all facility manufacturing process units subject to 45CSR§45-21-40 producing products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of 45CSR§21-37, or alternative procedures approved by the Director.
LDAR testing is required every three years, or upon request by the Director or his or her duly authorized representative. The Director may grant waiver or rescheduling of LDAR testing every three years if the Permittee submits a written request and justification.
[CO-R21-97-31, Condition III.2. (251.020, 251.040) (State Enforceable Only)]

5.2.4. At least monthly, visual emission checks of each emission point subject to a 45CSR7 opacity limit shall be conducted. For units emitting directly into the open air from points other than a stack outlet, visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an evaluation as outlined in 45CSR§7A-2.1.a,b within twenty-four (24) hours. However, a 45CSR§7A-2.1.a,b evaluation shall not be required more than once per month per emission unit. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§7A-2.1a,b and 45CSR§30-5.1.c. (252.003)]

5.2.5. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For the purpose of these checks, excess visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct a 40 CFR 60, Appendix A, Method 9 evaluation within twenty-four (24) hours. A Method 9 evaluation shall not be required if the visible emission condition is corrected within 25 hours and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site. Said record shall include, but not be limited to, the date, time, name of emission unit, the

applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c. (251.040)]

5.2.6. To show compliance with the Group 1 Continuous Process and Batch Vent Standards, as given in Conditions 5.1.26 for the Thermal Oxidizer G040 (251.040), the Permittee shall maintain the operating temperature >1,400°F as established in the Notification of Compliance Status (NOCS) Report dated October 7, 2008.
[45CSR34, 40CFR§63.2450(e)]

5.3. Testing Requirements

N/A

5.4. Recordkeeping Requirements

5.4.1. The owner or operator shall keep copies of all records required by Condition 5.4.3 for at least 2 years. The record required by Condition 5.4.2 will be kept for the life of the source.
[45CSR16, 40CFR§60.116b(a) (G017, G018)]

5.4.2. The owner or operator of each storage vessel as specified in Condition 5.4.1 of this permit shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.
[45CSR16, 40CFR§60.116b(b) (G017, G018)]

5.4.3. Except as provided in 40 CFR§60.116b(f) and (g), the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
[45CSR16, 40CFR§60.116b(c) (G017, G018)]

5.4.4. The Permittee shall keep the records specified in paragraphs (a) through (k) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in 40CFR§63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in paragraph (e)(2), (3), or (4) of this section, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in paragraph (e)(1) of this section.

(1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in paragraph (e)(1)(i), (ii), or (iii) of this section.

(i) The MCPU does not process, use, or generate HAP.

(ii) You control the Group 2 batch process vents using a flare that meets the requirements of 40CFR §63.987.

(iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.

(2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in 40CFR §63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.

(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to

recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.

(4) If you meet none of the conditions specified in paragraphs (e)(1) through (3) of this section, you must keep records of the information specified in paragraphs (e)(4)(i) through (iv) of this section.

(i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.

(ii) A record of whether each batch operated was considered a standard batch.

(iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with 40CFR §63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in 40CFR §63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by 40CFR §63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.*, identify the overlapping equipment between process units) required by 40CFR §63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by 40CFR §63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by 40CFR §63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by 40CFR §63.2535(l)(2)(iv).

(j) In the SSMP required by 40CFR §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

[45CSR34; 40CFR§§63.2525(a-k)]

5.5. Reporting Requirements

5.5.1. The permittee shall file reports on a quarterly basis which identify all periods of time during which compliance was not achieved with the following operating parameters:

Minimum Thermal Oxidizer Operating Temperature: 1400°F

Minimum Oxygen in Afterburner Exhaust: 3% dry basis

In any such aforementioned period of time, the permittee shall provide information detailing reasons for such excursions and corrective action taken. Such reports shall be filed no later than thirty (30) days from the end of each calendar quarter (i.e. April 30, July 30, October 30, and January 30).
[45CSR13, Permit No. R13-1534 -(Condition B.3.) (251.040)]

5.5.2. **40CFR63, Subpart FFFF Requirements for Group 2 Emission Points with a TRE index value greater than 1.9.** If a Group 2 emission point becomes a Group 1 emission point after the compliance date for the affected source, the emission point must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
[45CSR34; 40CFR§63.2445(d)]

5.5.3. **40CFR63, Subpart FFFF Requirements for Notification of Process Change.** Except as specified in 5.5.3.2 below, whenever a process change is made or any change to the information submitted in the notification of compliance status report or a previous compliance report that is not within the scope of an existing operating scenario, the change must be documented in the compliance report. A process change does not include moving within a range of conditions identified in the standard batch and a nonstandard batch does not constitute a process change.

5.5.3.1 The notification must include all of the following information:

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under 40CFR§63.2520(d).

(C) Information required by the notification of compliance status report under 40CFR§63.2520(d) for changes involving the addition of processes or equipment at the affected source.

5.5.3.2 You must submit a report 60 days before the scheduled implementation date of any of the changes identified below:

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in 40CFR§63.2460(b)(6)(i).

[45CSR34; 40CFR§63.2520(e)(10)]

5.5.4. (a) You must submit all of the notifications in 40CFR§§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in 40CFR §63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in 40CFR63 Subpart FFFF Table 2, you must also submit the test plan required by 40CFR §63.7(c) and the emission profile with the notification of the performance test.

[45CSR34; 40CFR§§63.2515 (a) and (c)]

5.5.5. The reporting timeline requirements for the compliance reports is as follows:

Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.

For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40CFR§§63.2520(b)(1) through (4).

[45CSR34; 40CFR§§63.2520(b)(3), (4), and (5)]

These compliance reports must include the following information specified in paragraphs (1) through (10) below:

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in 40CFR§63.2550, according to paragraphs (5)(i), (ii), (iii), and (iv) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (5)(iii)(A) through (L) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in 40CFR§63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by 40CFR §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in 40CFR §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in 40CFR §63.2525(i)(4) and records of primary product redeterminations as specified in 40CFR §63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.

(10) *Notification of process change.* (i) Except as specified in paragraph (10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under 40CFR§63.2520(d).

(C) Information required by the notification of compliance status report under 40CFR§63.2520(d) for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in 40CFR§63.2460(b)(6)(i).

[45CSR34; 40CFR§§63.2520(e)(1-10)]

5.6. Compliance Plan

N/A

Attachment A

CO-R27-92-45A:

Formaldehyde Limits

Attachment B

Allowable Emissions After Completion of Compliance Plan

Methylene Chloride

	Item	Point(s) of Emission*	Regulation 27 Registration Emissions lb/yr	Emissions After BAT lb/hr	lb/yr	Company's Proposed Compliance Determination Method
1.(A)	Shut down Sodium Styrene Sulfonate Unit	All Point Sources	233,000	0	0	Shut down
		All Fugitives		0	0	Shut down
		Formaldehyde				
(B)	Shut down Formaldehyde Process	(241, 242, 243)	35,420	0	0	Shut down
		Fugitives	53,140	0	0	Shut down
2.	Operate Incinerator	251.000	30	0.47	3241	Conduct Stack Test Efficiency Times TAP Concentration Determined By GC-C Times Flow Rate
3.	Install High Pressure Pumps	Fugitives	2,000	.002	20	Flowrate Times Concentration Times Emission Factor
		Waste water Emissions	3,000			
4.	Flamber/Incinerator	Process Waste Water Emissions	25,640	.023	182	Flowrate Times Concentration Times Emission Factor
5.	LDAR	Area 251	1,070	.024	216	Leaker Count Times Leak Rate Times Duration
	Total		130,300	0.519	3637	

* Process ID's and Emission Points as Described in Company's 1990 TAP Registration and per Company's Compliance Plan Submitted on June 28, 1991 and Subsequent Modifications.