



State of Ohio Environmental Protection Agency

STREET ADDRESS:

MAILING ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

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www.epa.state.oh.us

P.O. Box 1049
Columbus, OH 43216-1049

9/25/2008

Certified Mail

Mark Potochnik
Solvay Advanced Polymers LLC
17005 State Route 7
Post Office Box 446
Marietta, OH 45750-0446

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0684020008
Permit Number: 06-08420
Permit Type: OAC Chapter 3745-31 Modification
County: Washington

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
Yes	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southeast District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA DAPC, Southeast District Office

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install
for
Solvay Advanced Polymers LLC

Facility ID: 0684020008
Permit Number: 06-08420
Permit Type: OAC Chapter 3745-31 Modification
Issued: 9/25/2008
Effective: 9/25/2008



Air Pollution Permit-to-Install
for
Solvay Advanced Polymers LLC

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-08420
Facility ID: 0684020008
Effective Date: 9/25/2008

Authorization

Facility ID: 0684020008
Facility Description: Plastic materials.
Application Number(s): A0007314, A0035724
Permit Number: 06-08420
Permit Description: Chapter 31 modification to debottleneck P003, add new process and storage tanks to P010, and change the control equipment to a thermal oxidizer and wet scrubber .
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$2,500.00
Issue Date: 9/25/2008
Effective Date: 9/25/2008

This document constitutes issuance to:

Solvay Advanced Polymers LLC
17005 State Route 7
Post Office Box 446
Marietta, OH 45750

Of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



Authorization (continued)

Permit Number: 06-08420
 Permit Description: Chapter 31 modification to debottleneck P003, add new process and storage tanks to P010, and change the control equipment to a thermal oxidizer and wet scrubber .

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P003
Company Equipment ID:	Polysulfone Process
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	Multipurpose Polymer Process
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T020
Company Equipment ID:	Tank PD-105
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-08420
Facility ID: 0684020008
Effective Date: 9/25/2008

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A. 2.a), Severability Clause
 - (2) Standard Term and Condition A. 3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A. 6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A. 9., Reporting Requirements
 - (5) Standard Term and Condition A. 10., Applicability
 - (6) Standard Term and Condition A. 11.b) through A. 11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A. 14., Public Disclosure
 - (8) Standard Term and Condition A. 15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A. 16., Fees
 - (10) Standard Term and Condition A. 17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the 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 federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.



(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:



- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted



(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.



No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.



17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Southeast District Office must be notified in writing of any transfer of this permit.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-08420
Facility ID: 0684020008
Effective Date: 9/25/2008

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-08420
Facility ID: 0684020008
Effective Date: 9/25/2008

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart FFFF: P003, P010; and T020. The complete MACT requirements, including the MACT General provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-08420
Facility ID: 0684020008
Effective Date: 9/25/2008

C. Emissions Unit Terms and Conditions



1. P003, Polysulfone Process

Operations, Property and/or Equipment Description:

Polysulfone Unit controlled with thermal oxidizer and wet scrubber (shared with emissions unit P010 and T020) and nine baghouses. For purposes of 40 CFR 63, Subpart FFFF, this emissions unit is an existing miscellaneous chemical manufacturing process unit (MCPU) with associated storage tanks, transfer racks, wastewater, and equipment leak requirements. Organic HAP emissions shall be controlled by a thermal oxidizer and the resulting halogen halide emissions shall be controlled by a wet scrubber.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(2)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Total point source VOC emissions from this emission unit and P010 and T020 shall not exceed 31.71 lbs/hour and 138.9 tons per year. Total fugitive VOC emissions from this emissions unit shall not exceed 107 tons, based on rolling, 12-month summations. The thermal oxidizer shall achieve a control efficiency of 98%. The wet scrubber shall achieve a control efficiency of 99%. A Leak Detection and Repair program shall be maintained in accordance with 40 CFR 63, Subpart FFFF. See b)(2)f. The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subpart FFFF, UU, and A.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2) a.
c.	OAC rule 3745-17-07(A)	Visible emissions from any stack shall not exceed 20% opacity, as a six-minute



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		average. See b)(2)b.
d.	OAC rule 3745-17-11(A), Table 1	Particulate emissions shall not exceed 32.2 lbs/hr from the wet scrubber. See b)(2)c.
e.	40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550) [In accordance with 40 CFR 63.2435, this emissions unit is a MCPU producing an organic chemical or family of materials classified in the 1997 version of NAICS code 325 and is subject to the emissions limitations/control measures specified in this section.]	The thermal oxidizer shall achieve a control efficiency of 98% or an outlet concentration of 20 ppmv as organic HAP or TOC. See b)(2)d. The wet scrubber shall achieve a control efficiency of 99% or greater, by weight, or an outlet concentration of less than or equal to 0.45 kg/hr, or 20 ppmv. See b)(2)e.
f.	40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039) [In accordance with 40 CFR 63.2480, the permittee has elected to comply with the requirements of Subpart UU to satisfy the LDAR requirements of Subpart FFFF.]	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-31-05(A)(3). See b)(2)f.
g.	40 CFR Part 63, Subpart A (40 CFR 63.2540) (40 CFR 63.1019)	Table 12 to Subpart FFFF of 40 CFR Part 63 – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply. The provisions of this 40 CFR Part 63, Subpart A do not apply to Subpart UU except as noted in the referencing subpart (Subpart FFFF).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxide, sulfur dioxide, carbon monoxide, particulate emissions and lead from this air contaminant source since the uncontrolled potential to emit for nitrogen oxide, sulfur dioxide, carbon monoxide, particulate emissions, and lead is less than 10 tons/year.
- b. The presence of water vapor in the scrubber plume does not constitute visible emissions.



- c. The short-term limit for particulate emissions for this source is calculated according to OAC rule 3745-17-11, Table 1 and does not reflect the potential to emit for the wet scrubber included in this emissions unit.
- d. In accordance with 40 CFR part 63, Subpart FFFF, in order to achieve HAP reduction the permittee shall reduce HAP emissions from the sum of all process vents within a process:
 - i. by 98% by weight or greater using a control device (other than a flare); or
 - ii. by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP.
- e. For a halogen reduction device located after the combustion control device the permittee shall:
 - i. reduce overall emissions of hydrogen halide and halogen HAP by 99 % by weight or greater using control device (other than a flare); or
 - ii. reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 0.45 kg/hr; or
 - iii. reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 20 ppmv.
- f. Control, detection and timely repair of leaks from equipment subject to 40 CFR 63, Subpart UU will occur in accordance with the following sections:
 - i. for valves in gas and vapor service and in light liquid service, 63.1025;
 - ii. for pumps in light liquid service, 63.1026
 - iii. for connectors in gas and vapor service and in light liquid service, 63.1027;
 - iv. for agitators in gas and vapor service and in light liquid service, 63.1028
 - v. for pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service and instrumentation systems, 63.1029
 - vi. for pressure relief devices in gas and vapor service, 63.1030;
 - vii. for compressors, 63.1031;
 - viii. for sampling connection systems, 63.1032;
 - ix. for open-ended valves or lines, 63.1033; and,
 - x. for closed vent systems and control devices, 63.1034.



c) Operational Restrictions

- (1) All of the VOC emissions from the emission units listed above shall be vented to a thermal oxidizer when one or more of the emissions units are in operation.
- (2) The emissions from the emission units listed above shall be vented to a wet scrubber when one more of the emissions units are in operation.
- (3) The permittee shall burn only natural gas in this emissions unit.
- (4) See 40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550).
- (5) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and the operating manuals. The acceptable temperature setting shall be based upon the manufacturer=s specifications until such time as any required emission testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit(s).

These records shall be maintained at the facility for a period of three years.

- (3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;



- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range based upon information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for the controlled emissions unit(s). In addition, approved revisions to the temperature range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge), the scrubber liquid flow rate (in gallons per minute), and the scrubber liquid pH during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid pH and flow rate on a continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable liquid flow rate and the liquid pH shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.



Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop, flow rate, and pH readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

These range(s) and/or limit(s) for the pressure drop, liquid flow rate, and pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop, liquid flow rate, or pH based upon information obtained during future emission tests that demonstrate compliance with the allowable HAP emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be



noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (6) The permittee shall collect and record the following information on a monthly basis:
 - a. the amount of fugitive methyl chloride from the emission unit, in tons, determined using the commercially available software package called LEAKDAS or other equivalent program;
 - b. the amount of fugitive monochlorobenzene from the emissions unit, in tons, determined using the commercially available software package called LEAKDAS or other equivalent program; and,
 - c. the monthly fugitive VOC emissions from the emissions unit in tons [i.e., (a)+(b)].
- (7) See 40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550).
- (8) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports to the Director (the Ohio EPA, Southeast District office) that identify, based upon the monthly record keeping each exceedance of the rolling, 12-month fugitive VOC emission limitation.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the thermal oxidizer during the operation of the emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the



range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;

- b. each period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
- c. an identification of each incident of deviation described in Aa@ or "b" (above) where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in Aa@ or "b" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in Aa@ or "b" where proper records were not maintained for the investigation and/or the corrective action(s).

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the wet scrubber during the operation of the emissions unit(s):

- a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber, the liquid flow rate, or the liquid pH was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range for each parameter following any required compliance demonstration;
- b. an identification of each incident of deviation described in Aa@ (above) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in Aa@ where prompt corrective action, that would bring the pressure drop, liquid flow rate, or scrubber liquid pH into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in Aa@ where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.



- (4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.
 - (5) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
 - (6) See 40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550).
 - (7) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).
- f) Testing Requirements
- (1) Compliance with the emission limitations in b)(1)a. and d. of the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20 % opacity as a six-minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.
 - b. Emission Limitation:

Total point source VOC emissions from this emission unit and P010 and T020 shall not exceed 31.71 lbs/hour and 138.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined based on the maximum design capacity of the thermal oxidizer and design case information provided by the permittee(1,585.5 lbs VOC/hr) and a destruction efficiency of 98% for the thermal oxidizer.

(Total VOC to Thermal Oxidizer (lb VOC/hr))(1.0- control efficiency)=

(1,585.5 lbs VOC/hr)(1.0-0.98) = 31.7 lb VOC/hr

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.



Compliance with the annual VOC limitation shall be demonstrated using the following calculation based on the short term limit (lb/hr) and the maximum annual operating schedule:

$$(31.7 \text{ lb/hr})(8,760 \text{ hrs/yr})(0.0005 \text{ ton/lb}) = 138.9 \text{ TPY VOC}$$

c. Emission Limitation:

Total fugitive VOC emissions from this emissions unit shall not exceed 107 tons, based on rolling, 12-month summations.

Applicable Compliance Method:

Compliance with the rolling, 12-month summation limitation for fugitive VOCs shall be demonstrated based upon the record keeping required in d)(6).

d. Emission Limitation:

In accordance with 40 CFR Part 63, Subpart FFFF, in order to achieve HAP reduction the permittee shall reduce HAP emissions from the sum of all process vents within a process by 98% by weight or greater using a control device (other than a flare).

Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

e. Emissions Limitation:

In accordance with 40 CFR Part 63, Subpart FFFF, in order to achieve HAP reduction the permittee shall reduce HAP emissions from the sum of all process vents within a process by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP.

Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25 or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

f. Emissions Limitation:

For a halogen reduction device located after the combustion control device the permittee shall reduce overall emissions of hydrogen halide and halogen HAP by 99 % by weight or greater using control device (other than a flare).



Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 26 or 26A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g. Emissions Limitation:

For a halogen reduction device located after the combustion control device the permittee shall reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 0.45 kg/hr.

Applicable Compliance Method:

If required, total halogen halides and halogens shall be determined according to test Methods 1-4 and 26 or 26A as set for the in the "Appendix on Test Methods" in 40 CFR, part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

h. Emissions Limitation:

For a halogen reduction device located after the combustion control device the permittee shall reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 20 ppmv.

Applicable Compliance Method:

If required, total halogen halides and halogens shall be determined according to test Methods 1-4 and 26 or 26A as set for the in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for VOCs and the overall control efficiency limitation for VOC, HAPs, hydrogen halides and halides.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for VOC, Methods 1 - 4, and 18, 25, or 25A of 40 CFR Part 60, Appendix A; and,



for hydrogen halides and halogen HAPs, Methods 1-4, and Method 26 or 26A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. In accordance with 40 CFR Part 63.997, sampling sites used during compliance determinations shall be located in accordance with the following:
 - i. To determine compliance with the percent reduction of HAPs, the control device inlet sampling site shall be located at the exit from the unit operation before any control device and at the outlet of the control device.
 - ii. To determine compliance with the parts per million by volume HAP limit, the sampling site shall be located at the outlet of the control device.
 - iii. To determine compliance with the percent reduction of total hydrogen halides and halogens requirements, sampling sites shall be located at the inlet and outlet of the scrubber used to reduce halogen emissions.
 - iv. To determine compliance with the kilogram per hour emission limit for total hydrogen halides and halogens, the sampling site shall be located at the outlet of the scrubber and prior to any release to the atmosphere.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- g. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.



g) Miscellaneous Requirements

- (1) The terms and conditions contained in this permit for this emissions unit shall supersede all the air pollution control requirements for the emissions unit contained in the permit to install PTI 06-4638 issued on February 22, 1996.
- (2) Modeling to demonstrate compliance with, the AToxic Air Contaminant Statute^o, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit=s maximum annual emissions of lead, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.



2. P010, Multipurpose Polymer Process

Operations, Property and/or Equipment Description:

Multipurpose Polymer Unit (Chapter 31 modification to install new storage and process tanks(Blend Tank C-1577, MCB Storage Tank C-1911, Sulfolane Storage Tank C-1912, Solvent Feed Tank C-1897, and fugitive components) and adding new control systems to comply with 40 CFR part 63, Subpart FFFF.) For purposes of 40 CFR 63, Subpart FFFF, this emissions unit is an existing miscellaneous chemical manufacturing process unit (MCPU) with associated storage tanks, transfer racks, wastewater, and equipment leak requirements. Organic HAP emissions shall be controlled by a thermal oxidizer and the resulting halogen halide emissions shall be controlled by a wet scrubber.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(2)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Total point source VOC emissions from this emission unit and P003 and T020 shall not exceed 31.71 lbs/hour and 138.9 tons per year.</p> <p>Total fugitive VOC emissions from this emissions unit shall not exceed 81.68 tons, based on rolling, 12-month summations.</p> <p>The thermal oxidizer shall achieve a control efficiency of 98%.</p> <p>The wet scrubber shall achieve a control efficiency of 99%.</p> <p>A Leak Detection and Repair program shall be maintained in accordance with 40 CFR 63, Subpart FFFF. See b)(2)g.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subpart FFFF, UU, and A..</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a.
c.	OAC rule 3745-31-05(E) (Voluntary restriction to avoid BAT.)	See b)(2)b.
d.	OAC rule 3745-17-07(A)	Visible emissions from any stack shall not exceed 20% opacity, as a six-minute average. See b)(2)c.
e.	OAC rule 3745-17-11(A), Table 1 and Figure II	Particulate emissions shall not exceed 32.2 lbs/hr from the wet scrubber. Particulate emissions shall not exceed 104.3 lbs/hr from the baghouse and wet scrubber stacks. See b)(2)d.
f.	40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550) [In accordance with 40 CFR 63.2435, this emissions unit is a MCPU producing an organic chemical or family of materials classified in the 1997 version of NAICS code 325 and is subject to the emissions limitations/control measures specified in this section.]	The thermal oxidizer shall achieve a control efficiency of 98% or an outlet concentration of 20 ppmv as organic HAP or TOC. See b)(2)e. The wet scrubber shall achieve a control efficiency of 99% or greater, by weight, or an outlet concentration of less than or equal to 0.45 kg/hr, or 20 ppmv. See b)(2)f.
g.	40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039) [In accordance with 40 CFR 63.2480, the permittee has elected to comply with the requirements of Subpart UU to satisfy the LDAR requirements of Subpart FFFF.]	See b)(2)g.
h.	40 CFR Part 63, Subpart A (40 CFR 63.2540) (40 CFR 63.1019)	Table 12 to Subpart FFFF of 40 CFR Part 63 – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply. The provisions of this 40 CFR Part 63, Subpart A do not apply to Subpart UU except as noted in the referencing subpart (Subpart FFFF).



(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxide, sulfur dioxide, carbon monoxide and lead from this air contaminant source since the uncontrolled potential to emit for nitrogen oxide, sulfur dioxide, carbon monoxide and lead is less than 10 tons/year.
- b. Permit to Install 06-08420 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. the proper operation of baghouses (Y-1519 DC, Y-217, Y-266 and Y-520A) and wet scrubbers (Y-1216, Y-218, Y-559, UD-731 and UD-751) to control particulate emissions; and,
 - ii. the combustion of natural gas in the thermal oxidizers to maintain uncontrolled particulate emissions under 10 tons per year.
- c. The presence of water vapor in the scrubber plume does not constitute visible emissions.
- d. The short-term limit for particulate emissions for this source is calculated according to OAC rule 3745-17-11, Table 1 and Figure II and does not reflect the potential to emit for the baghouses (Y-1519 DC, Y-217, Y-266, and Y-520A) and wet scrubbers (Y-1216, Y-218, and Y-559) included in this emissions unit.
- e. In accordance with 40 CFR part 63, Subpart FFFF, in order to achieve HAP reduction the permittee shall:
 - i. reduce HAP emissions from the sum of all process vents within a process by 98% by weight or greater using a control device (other than a flare); or
 - ii. control emissions from any batch vents within the process by any combination of the following and reduce HAP emissions from the sum of all the remaining batch vents within the process by 98% by weight or greater with control devices:
 - (a) reduce outlet organic HAP or TOC concentration to less than or equal to 20 ppmv; or
 - (b) use an exempt control device.
- f. For a halogen reduction device located after the combustion control device:
 - i. reduce overall emissions of hydrogen halide and halogen HAP by 99 % by weight or greater using control device (other than a flare); or
 - ii. reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 0.45 kg/hr; or



- iii. reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 20 ppmv.
- g. Control, detection and timely repair of leaks from equipment subject to 40 CFR Part 63, Subpart UU will occur in accordance with the following sections:
 - i. for valves in gas and vapor service and in light liquid service, 63.1025;
 - ii. for pumps in light liquid service, 63.1026
 - iii. for connectors in gas and vapor service and in light liquid service, 63.1027;
 - iv. for agitators in gas and vapor service and in light liquid service, 63.1028
 - v. for pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service and instrumentation systems, 63.1029
 - vi. for pressure relief devices in gas and vapor service, 63.1030;
 - vii. for compressors, 63.1031;
 - viii. for sampling connection systems, 63.1032;
 - ix. for open-ended valves or lines, 63.1033; and,
 - x. for closed vent systems and control devices, 63.1034.
- c) Operational Restrictions
 - (1) All of the VOC emissions from the emissions units listed above shall be vented to a thermal oxidizer when one or more of the emissions units are in operation.
 - (2) The emissions from the emissions units listed above shall be vented to a wet scrubber when one or more of the emissions units are in operation.
 - (3) The permittee shall burn only natural gas in this emissions unit.
 - (4) See 40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550).
 - (5) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;



- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.
- (2) If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
- (3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit(s).

These records shall be maintained at the facility for a period of three years.

- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;



- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range based upon information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for the controlled emissions unit(s). In addition, approved revisions to the temperature range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge), the scrubber liquid flow rate (in gallons per minute), and the scrubber liquid pH during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid pH and flow rate on a continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The acceptable liquid flow rate and the liquid pH shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.



Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date the corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop, flow rate, and pH readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

These range(s) and/or limit(s) for the pressure drop, liquid flow rate, and pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop, liquid flow rate, or pH based upon information obtained during future emission tests that demonstrate compliance with the allowable HAP emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.



- (6) The permittee shall collect and record the following information on a monthly basis:
 - a. the amount of fugitive methyl chloride from the emission unit, in tons, determined using the commercially available software package called LEAKDAS or other equivalent program;
 - b. the amount of fugitive monochlorobenzene from the emissions unit, in tons, determined using the commercially available software package called LEAKDAS or other equivalent program; and,
 - c. the monthly fugitive VOC emissions from the emissions unit in tons [i.e, (a)+(b)].
 - (7) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (8) See 40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550).
 - (9) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports to the Director (the Ohio EPA, Southeast District office) that identify, based upon the monthly record keeping each exceedance of the rolling, 12-month fugitive VOC emission limitation.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the thermal oxidizer during the operation of the emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
 - b. each period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
 - c. an identification of each incident of deviation described in Aa@ or “b” (above) where a prompt investigation was not conducted;
 - d. an identification of each incident of deviation described in Aa@ or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. an identification of each incident of deviation described in Aa@ or “b” where proper records were not maintained for the investigation and/or the corrective action(s).

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.



The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the wet scrubber during the operation of the emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber, the liquid flow rate, or the liquid pH was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range for each parameter following any required compliance demonstration;
 - b. an identification of each incident of deviation described in Aa@ (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in Aa@ where prompt corrective action, that would bring the pressure drop, liquid flow rate, or scrubber liquid pH into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in Aa@ where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (5) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (6) See 40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550).
- (7) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1)a. and d. of the terms and conditions of this permit shall be determined in accordance with the following methods:



a. Emission Limitation:

Visible particulate emissions from any baghouse stack shall not exceed 20 % opacity as a six-minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

b. Emission Limitation:

Total point source VOC emissions from this emission unit and P010 and T020 shall not exceed 31.71 lbs/hour and 138.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined based on the maximum design capacity of the thermal oxidizer and design case information provided by the permittee (1,585.5 lbs VOC/hr) and a destruction efficiency of 98% for the thermal oxidizer.

$$(Total\ VOC\ to\ Thermal\ Oxidizer\ (lb\ VOC/hr))(1.0 - control\ efficiency) =$$

$$(1,585.5\ lbs\ VOC/hr)(1.0 - 0.98) = 31.7\ lb\ VOC/hr$$

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the annual VOC limitation shall be demonstrated using the following calculation based on the short term limit (lb/hr) and the maximum annual operating schedule:

$$(31.7\ lb/hr)(8,760\ hrs/yr)(0.0005\ ton/lb) = 138.9\ TPY\ VOC$$

c. Emission Limitation:

Total fugitive VOC emissions from this emissions unit shall not exceed 81.68 tons, based on rolling, 12-month summations.

Applicable Compliance Method:

Compliance with the rolling, 12-month summation limitation for fugitive VOCs shall be demonstrated based upon the record keeping required in d)(6).

d. Emission Limitation:

In accordance with 40 CFR Part 63, Subpart FFFF, in order to achieve HAP reduction the permittee shall reduce HAP emissions from the sum of all process vents within a process by 98% by weight or greater using a control device (other than a flare).



Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

e. Emissions Limitation:

In accordance with 40 CFR Part 63, Subpart FFFF, in order to achieve HAP reduction the permittee shall reduce HAP emissions from the sum of all process vents within a process by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP.

Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25 or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

f. Emissions Limitation:

For a halogen reduction device located after the combustion control device the permittee shall reduce overall emissions of hydrogen halide and halogen HAP by 99 % by weight or greater using control device (other than a flare).

Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 26 or 26A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g. Emissions Limitation:

For a halogen reduction device located after the combustion control device the permittee shall reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 0.45 kg/hr.

Applicable Compliance Method:

If required, total halogen halides and halogens shall be determined according to test Methods 1-4 and 26 or 26A as set for the in the "Appendix on Test Methods" in 40 CFR, part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.



h. Emissions Limitation:

For a halogen reduction device located after the combustion control device the permittee shall reduce overall emissions of hydrogen halide and halogen HAP to a concentration of less than or equal to 20 ppmv.

Applicable Compliance Method:

If required, total halogen halides and halogens shall be determined according to test Methods 1-4 and 26 or 26A as set for the in the "Appendix on Test Methods" in 40 CFR, part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for VOCs and the overall control efficiency limitation for VOC, HAPs, hydrogen halides, and halides.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for VOC, Methods 1 - 4, and 18, 25, or 25A of 40 CFR Part 60, Appendix A

for halides and hydrogen halides, Methods 1-4, and 26 or 26A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. In accordance with 40 CFR Part 63.997, sampling sites used during compliance determinations shall be located in accordance with the following:

i. To determine compliance with the percent reduction of HAPs, the control device inlet sampling site shall be located at the exit from the unit operation before any control device and at the outlet of the control device.

ii. To determine compliance with the parts per million by volume HAP limit, the sampling site shall be located at the outlet of the control device.

iii. To determine compliance with the percent reduction of total hydrogen halides and halogens requirements, sampling sites shall be located at the inlet and outlet of the scrubber used to reduce halogen emissions.



- iv. To determine compliance with the kilogram per hour emission limit for total hydrogen halides and halogens, the sampling site shall be located at the outlet of the scrubber and prior to any release to the atmosphere.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - g. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- g) **Miscellaneous Requirements**
- (1) The terms and conditions contained in this permit for this emissions unit shall supersede all the air pollution control requirements for the emissions unit contained in the permit to install 06-07858 issued on June 5, 2008.
 - (2) Modeling to demonstrate compliance with, the A Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions of lead, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.



3. T020, Tank PD-105

Operations, Property and/or Equipment Description:

50,000 gallon Monochlorobenzene Tank (Company ID PD-150) For purposes of 40 CFR 63, Subpart FFFF, this emissions unit is a Group 1 storage tank at an existing miscellaneous chemical manufacturing process unit (MCPU) .

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

a) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a.
b.	40 CFR Part 60, Subpart Kb [In accordance with 40 CFR 60.112b(a) this emissions unit includes a process tank with a design capacity greater than or equal to 151 cubic meters containing a volatile organic liquid with a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa and is subject to the emissions limitation/control measures specified in this section.]	See b)(2)b.
c.	40 CFR Part 63, Subpart FFFF (40 CFR 63.2430- 2550) [In accordance with 40 CFR 63.2435, this emissions unit is a MCPU producing an organic chemical or family of materials classified in the 1997 version of NAICS code 325 and is subject to the emissions limitations/control measures specified in this section.]	Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).
d.	40 CFR Part 63, Subpart UU	See b)(2)e.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(40 CFR 63.1019-1039) [In accordance with 40 CFR 63.2480, the permittee has elected to comply with the requirements of Subpart UU to satisfy the LDAR requirements of Subpart FFFF.]	
e.	40 CFR Part 63, Subpart A (40 CFR 63.2540) (40 CFR 63.1019)	Table 12 to Subpart FFFF of 40 CFR part 63 – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply. The provisions of this 40 CFR Part 63, Subpart A do not apply to Subpart UU except as noted in the referencing subpart (Subpart FFFF).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC from this air contaminant source since the uncontrolled potential to emit for VOC is less than ten tons per year.
- b. In accordance with 40 CFR Part 63.2535(c), the permittee has elected to comply with the requirements of 40 CFR Part 63, Subpart FFFF in order to comply with the control requirements of 40 CFR Part 60, Subpart Kb.
- c. In accordance with 40 CFR part 63, Subpart FFFF, Table 4, the permittee will reduce total HAP emissions by ≥ 95 percent by weight or to ≤ 20 ppmv of TOC or organic HAP and ≤ 20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).
- d. In order to control halogenated vent streams from Group 1 storage tanks, the permittee shall 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.
- e. Control, detection and timely repair of leaks from equipment subject to 40 CFR Part 63, Subpart UU will occur in accordance with the following sections:
 - i. for valves in gas and vapor service and in light liquid service, 63.1025;
 - ii. for pumps in light liquid service, 63.1026



- iii. for connectors in gas and vapor service and in light liquid service, 63.1027;
 - iv. for agitators in gas and vapor service and in light liquid service, 63.1028
 - v. for pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service and instrumentation systems, 63.1029
 - vi. for pressure relief devices in gas and vapor service, 63.1030;
 - vii. for compressors, 63.1031;
 - viii. for sampling connection systems, 63.1032;
 - ix. for open-ended valves or lines, 63.1033; and,
 - x. for closed vent systems and control devices, 63.1034.
- b) Operational Restrictions
- (1) See 40 CFR part 63, Subpart FFFF (40 CFR 63.2430- 2550).
 - (2) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).
- c) Monitoring and/or Recordkeeping Requirements
- (1) See 40 CFR part 63, Subpart FFFF (40 CFR 63.2430- 2550).
 - (2) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).
- d) Reporting Requirements
- (1) See 40 CFR part 63, Subpart FFFF (40 CFR 63.2430- 2550).
 - (2) See 40 CFR Part 63, Subpart UU (40 CFR 63.1019-1039).
- e) Testing Requirements
- a. Emission Limitation:

In accordance with 40 CFR part 63, Subpart FFFF, Table 4, the permittee will reduce total HAP emissions by ≥ 95 percent by weight or to ≤ 20 ppmv of TOC or organic HAP and ≤ 20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).

Applicable Compliance Method:

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A, and 26, or 26A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary



Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the control efficiency and outlet concentration requirements of 40 CFR 63, Subpart FFFF.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for VOC, Methods 1 - 4, and 18, 25, or 25A of 40 CFR Part 60, Appendix A; and,

for halides and hydrogen halides, Methods 1-4, and 26 or 26A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. In accordance with 40 CFR Part 63.997, sampling sites used during compliance determinations shall be located in accordance with the following:
 - i. To determine compliance with the percent reduction of HAPs, the control device inlet sampling site shall be located at the exit from the unit operation before any control device and at the outlet of the control device.
 - ii. To determine compliance with the parts per million by volume HAP limit, the sampling site shall be located at the outlet of the control device.
 - iii. To determine compliance with the kilogram per hour emission limit for total hydrogen halides and halogens, the sampling site shall be located at the outlet of the scrubber and prior to any release to the atmosphere.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

