



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

08/07/02

**CERTIFIED MAIL**

**RE: Final Title V Chapter 3745-77 permit**

02-47-04-0822

Nylonge  
Dominique Alibeckoff  
1301 Lowell st.  
Elyria, OH 44035-4864

Dear Dominique Alibeckoff:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street  
Room 300  
Columbus, Ohio 43215

If you have any questions, please contact Northeast District Office.

Very truly yours,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Northeast District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

**FINAL TITLE V PERMIT**

Issue Date: <b>08/07/02</b>	Effective Date: <b>08/07/02</b>	Expiration Date: <b>08/07/07</b>
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This document constitutes issuance of a Title V permit for Facility ID: 02-47-04-0822 to:

Nylonge  
1301 Lowell st.  
Elyria, OH 44035-4864

**Emissions Unit ID (Company ID)/Emissions Unit Activity Description**

P001 (P001) R1	CC2	R3
P002 (P002) R2	P005 (P005) CL1	P009 (P009) R4
P003 (P003) CC1	P007 (P007) BS1	P010 (P010) CL2
P004 (P004)	P008 (P008)	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330) 425-9171

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **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:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*
- 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 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.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*
- c. The permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*
  - ii. **For emission limitations, operational restrictions, and control device operating parameter limitations:**
    - (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring and record keeping requirements specified in this permit; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the

deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) ,(ii) and (iii))*

- (b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and

reporting requirements. 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.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))*

- iv. 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

## **2. 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 of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, 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 emissions unit(s) that is (are) served by such control system(s).

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))*

## **3. 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.

*(Authority for term: OAC rule 3745-77-07(A)(4))*

## **4. 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.

*(Authority for term: OAC rule 3745-77-07(A)(5))*

## **5. Severability Clause**

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.

*(Authority for term: OAC rule 3745-77-07(A)(6))*

## **6. 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 reissuance, or modification, or for denial of a permit renewal application.

- 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, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. 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, reopening 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.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

**7. 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.

*(Authority for term: OAC rule 3745-77-07(A)(8))*

**8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(9))*

**9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(10))*

**10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

*(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))*

#### **11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

*(Authority for term: OAC rule 3745-77-07(B))*

#### **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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.
- b. 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:

- i. 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.
  - ii. 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 paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. 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.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency 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:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. 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.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

*(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))*

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

*(Authority for term: OAC rule 3745-77-07(F))*

#### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

#### **15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

*(Authority for term: OAC rule 3745-77-07(G))*

#### **16. Off-Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)  
(*Authority for term: OAC rule 3745-77-07(I)*)

#### **17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(*This term is provided for informational purposes only.*)

#### **18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

(*Authority for term: OAC rule 3745-77-07(A)(1)*)

#### **19. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(*Authority for term: OAC rule 3745-77-07(A)(1)*)

#### **20. 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.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**B. State Only Enforceable Section**

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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., 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.)

**2. Records Retention Requirements**

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.

**3. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee

shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**4. 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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

**5. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**6. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

None

### B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B001: 4.0 MM Btu/hour gas-fired boiler. Boiler #1  
B002: 4.0 MM Btu/hour gas-fired boiler. Boiler #2  
T001: 23,500-gallon storage tank containing carbon disulfide  
T002: 23,500-gallon storage tank containing carbon disulfide  
Z001: 10,000-gallon storage tank containing 50% sodium hydroxide  
Z002: 10,000-gallon storage tank containing 50% sodium hydroxide  
Z003: 10,000-gallon storage tank containing 50% sodium hydroxide  
Z004: 8,000-gallon storage tank containing 15% sodium hypochlorite  
Z005: 6,000-gallon storage tank containing 93% sulfuric acid  
Z006: 6,000-gallon storage tank containing fungicide  
Z007: 10,000-gallon storage tank containing magnesium chloride  
Z008: 10,000-gallon storage tank containing magnesium chloride  
Z009: 10,000-gallon storage tank containing ferrous chloride  
Z010: 6,000-gallon storage tank containing 50% hydrogen chloride

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a Permit to Install for the emissions unit.

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** P001 (P001)

**Activity Description:** R1

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Xanthation Reactor #1 and support equipment (200-gallon steeping caustic tank, 200-gallon carbon disulfide batch tank, 50-gallon water tank) with Biofiltration System and Packed Bed Scrubber.	OAC rule 3745-31-05 (D) PTI No. 02-9121	0.2 pound of VOC per hour.  See sections A.I.2.b - A.I.2.e, sections A.II.1 - A.II.3, section A.II.7, and section A.VI.1 of these terms and conditions.
	OAC rule 3745-21-07 (G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).  Exempt, see section A.I.2.a of these terms and conditions.
	40 CFR Part 63, subpart UUUU	See sections A.IV.6 and A.IV.7 of these terms and conditions.

**2. Additional Terms and Conditions**

- 2.a** This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b** The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide).
- 2.c** Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## 2. Additional Terms and Conditions (continued)

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For a period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 420 hours in any 365-day period for emissions units P001, P002, P005, P007, and P008.
- 2.e** The VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons per year, based upon a rolling 365-day summation.

## II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 8,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain an 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008, provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while this emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, all process emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA-approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
6. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:

a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.

b. A minimum of one gas sample shall be collected at the inlet and outlet of the control system and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.

c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- a. The date and an indication as to whether or not any shift of the day is exempted due to startup after a facility shutdown.
  - b. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - c. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - e. The daily operating hours for this emissions unit, in hours per day.
  - f. The rolling 365-day summation of the operating hours for this emissions unit.
  - g. The rolling 365-day summation of the startup period operating hours for emissions units P001, P002, P005, P007, and P008.
  - h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - j. The results of the gas chromatograph analyses.
  - k. The calculated hourly VOC emission rate for each gas sample.
  - l. The average hourly VOC emission rate for the inlet of the control system, the outlet of the control system, and for the facility ventilation stack.
  - m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - n. The VOC emission removal efficiency.
  - o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - p. The rolling, 15-day, average VOC emission removal efficiency.
  - q. The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information for this emissions unit:
  - a. An identification of each day during which any photochemically reactive materials were employed, and the actual amount, in pounds per day, of photochemically reactive materials employed.
  - b. An identification of each day during which the rolling 365-day operating hours exceeded 8,000 hours per year, and the actual rolling 365-day operating hours for each such day.
  - c. An identification of each rolling, 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day of startup periods during which the average VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 66.2 pounds per hour and the average VOC emission removal efficiency was less than 50%, and the actual average hourly VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008 and the actual average VOC emission removal efficiency for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P001, P002, P005, P007, and P008 exceeded 420 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown), for emissions units P001, P002, P005, P007, and P008.
  - c. The total VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 0.2 lb/hr VOC

Applicable Compliance Method:

The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.

The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.

- b. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

- c. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

- d. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds/hour of VOC for emissions units P001, P002,, P003, P004, P005, P007, and P008 during startup period

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

## V. Testing Requirements (continued)

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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation and VOC control efficiency for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC: USEPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- 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 Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction or failure, in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P002 (P002)

**Activity Description:** R2

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Xanthation Reactor # 2 and support equipment (200-gallon steeping caustic tank, 200-gallon carbon disulfide batch tank, 50-gallon water tank) with Biofiltration System and Packed Bed Scrubber.	OAC rule 3745-31-05 (D) PTI No. 02-9121	0.2 pound of VOC per hour.  See sections A.I.2.b - A.I.2.e, sections A.II.1 - A.II.3, section A.II.7, and section A.VI.1 of these terms and conditions.
	OAC rule 3745-21-07 (G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).  Exempt, see section A.I.2.a of these terms and conditions.
	40 CFR Part 63, subpart UUUU	See sections A.IV.6 and A.IV.7 of these terms and conditions.

##### 2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide).
- 2.c Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For a period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 420 hours in any 365-day period for emissions units P001, P002, P005, P007, and P008.
- 2.e** The VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons per year, based upon a rolling 365-day summation.

## **II. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 8,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008 provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while this emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, process emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
6. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:

a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.

b. A minimum of one gas sample shall be collected at the inlet of the control system, one at the outlet of the control system and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.

c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time gas sample was collected.

d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- a. The date and an indication as to whether or not any shift of the day is exempted due to startup after a facility shutdown.
  - b. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - c. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - e. The daily operating hours for this emissions unit, in hours per day.
  - f. The rolling 365-day summation of the operating hours for this emissions unit.
  - g. The rolling 365-day summation of the startup period operating hours for emissions units P001, P002, P005, P007, and P008.
  - h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - j. The results of the gas chromatograph analyses.
  - k. The calculated hourly VOC emission rate for each gas sample.
  - l. The average hourly VOC emission rate for the inlet of the control system, for the outlet of the control system and for the outlet of the facility ventilation stack.
  - m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - n. The VOC emission removal efficiency.
  - o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - p. The rolling, 15-day, average VOC emission removal efficiency.
  - q. The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information for this emissions unit:
  - a. An identification of each day during which any photochemically reactive materials were employed, and the actual amount, in pounds per day, of photochemically reactive materials employed.
  - b. An identification of each day during which the rolling 365-day operating hours exceeded 8,000 hours per year, and the actual rolling 365-day operating hours for each such day.
  - c. An identification of each rolling, 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day of startup periods during which the average VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 66.2 pounds per hour and the average VOC emission removal efficiency was less than 50%, and the actual average hourly VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008 and the actual average VOC emission removal efficiency for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P001, P002, P005, P007, and P008 exceeded 420 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown) for emissions units P001, P002, P005, P007, and P008.
  - c. The total VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: 0.2 lb/hr VOC  
  
Applicable Compliance Method:  
The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.  
  
The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.
  - b. Emission Limitation: 80% removal efficiency of VOC  
  
Applicable Compliance Method:  
Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.
  - c. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008  
  
Applicable Compliance Method:  
Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.
  - d. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds/hour of VOC for emissions units P001, P002,, P003, P004, P005, P007, and P008 during startup period  
  
Applicable Compliance Method:  
Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.
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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation and VOC control efficiency for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC: USEPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.  
  
Alternative USEPA-approval test methods may be used with prior approval from the Ohio EPA.  
  
The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - 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 Ohio EPA Northeast District Office.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction, or failure in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** P003 (P003)  
**Activity Description:** CC1

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Continuous Sponge Line #1 and support equipment (sponge mass hopper and three circulation tanks) with Biofiltration System and Packed Bed Scrubber	OAC rule 3745-31-05 (D) PTI No. 02-9121	6.8 pounds of VOC per hour.  0.76 pound of hydrogen sulfide per hour.
		See sections A.I.2.b - A.I.2.f, sections A.II.1 - A.II.3, section A.II.7, and sections A.VI.1 of these terms and conditions.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).
	OAC rule 3745-21-07 (G)(2)	Exempt, see section A.I.2.a of these terms and conditions.
	40 CFR Part 63, subpart UUUU	See sections A.IV.6 and A.IV.7 of these terms and conditions.

**2. Additional Terms and Conditions**

- 2.a** This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b** The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide) and 90% of hydrogen sulfide.
- 2.c** Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## 2. Additional Terms and Conditions (continued)

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 300 hours in any 365-day period for emissions units P003 and P004.
- 2.e** The emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons VOC per year based upon a rolling 365-day summation.
- 2.f** The emissions from emissions units P003, P004, P005, and P007 shall not exceed 5.64 tons hydrogen sulfide per year.

## II. Operational Restrictions

1. The maximum combined annual operating hours for emissions units P003 and P004 shall not exceed 12,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain an 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008 provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while the emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, all process carbon disulfide and hydrogen sulfide emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall kept the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
6. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:
  - a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.
  - b. A minimum of one gas sample shall be collected at the inlet of the control system one at the outlet of the control system, and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.
  - c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lbs/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

- d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- a. The date and an indication as to whether or not any shift in the day is exempted due to startup after a facility shutdown.
  - b. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - c. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - e. The daily operating hours for this emissions unit, in hours per day.
  - f. The rolling 365-day summation of the operating hours for this emissions unit.
  - g. The rolling 365-day summation of the startup period operating hours for emissions units P003 and P004.
  - h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - j. The results of the gas chromatograph analyses.
  - k. The calculated hourly VOC emission rate for each gas sample.
  - l. The average hourly VOC emission rate for the inlet of the control system, the outlet of the control system and for the facility ventilation stack.
  - m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - n. The VOC emission removal efficiency.
  - o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - p. The rolling, 15-day, average VOC emission removal efficiency.
  - q. The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. An identification of each day during which any photochemically reactive materials were employed in this emissions unit, and the actual amount, in pounds per day, of photochemically reactive materials employed in this emissions unit for each such day.
  - b. An identification of each day during which the combined rolling 365-day operating hours for emissions units P003 and P004 exceeded 12,000 hours per year, and the actual rolling 365-day operating hours for emissions units P003 and P004 for each such day.
  - c. An identification of each rolling 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day during startup periods during which the average VOC emission removal efficiency was less than 50% and the VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008 exceeded 66.2 pounds per hour, and the actual average VOC emission removal efficiency and the actual VOC emissions for emissions units P001, P002, P003, P004, P005, P007, and P008 for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P003 and P004 exceeded 300 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown) for emissions units P003 and P004.
  - c. The total VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source;
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 6.8 lbs/hr of VOC

Applicable Compliance Method:

The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.

The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.

- b. Emission Limitation: 0.76 lb/hr of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- c. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

- d. Emission Limitation: 90% removal efficiency of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- e. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

- f. Emission Limitation: 5.64 tons/year of hydrogen sulfide for emissions units P003, P004, P005, and P007

Applicable Compliance Method:

Compliance shall be determined by multiplying the hydrogen sulfide pounds per hour emission rate for emissions units P003, P004, P005, and P007 in accordance with the most recent compliance stack test, times operating hours, and dividing by 2000 pounds per ton.

- g. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds VOC per hour for emissions units P001, P002, P003, P004, P005, P007, and P008 during startup period

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

## V. Testing Requirements (continued)

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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC and hydrogen sulfide emission limitations, and VOC and hydrogen sulfide control efficiencies for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC and hydrogen sulfide: US EPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- 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 Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction or failure in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P004 (P004)

**Activity Description:** CC2

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Continuous Sponge Line #2 and support equipment (sponge mass hopper and three circulation tanks) with Biofiltration System and Packed Bed Scrubber	OAC rule 3745-31-05 (D) PTI No. 02-9121	6.8 pounds of VOC per hour.  0.76 pound of hydrogen sulfide per hour.
		See sections A.I.2.b - A.I.2.f, sections A.II.1 - A.II.3, section A.II.7, and sections A.VI.1 of these terms and conditions.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).
	OAC rule 3745-21-07 (G)(2)	Exempt, see section A.I.2.a of these terms and conditions.
	40 CFR Part 63, subpart UUUU	See sections A.IV.6 and A.IV.7 of these terms and conditions.

##### 2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide) and 90% of hydrogen sulfide.
- 2.c Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## 2. Additional Terms and Conditions (continued)

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 300 hours in any 365-day period for emissions units P003 and P004.
- 2.e** The emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons VOC per year based upon a rolling 365-day summation.
- 2.f** The emissions from emissions units P003, P004, P005, and P007 shall not exceed 5.64 tons hydrogen sulfide per year.

## II. Operational Restrictions

1. The maximum combined annual operating hours for emissions units P003 and P004 shall not exceed 12,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain an 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008 provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while the emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, all process carbon disulfide and hydrogen sulfide emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall kept the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
6. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:
  - a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.
  - b. A minimum of one gas sample shall be collected at the inlet of the control system, one at the outlet of the control system, and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.
  - c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

- d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

- e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- The date and an indication as to whether or not any shift in the day is exempted due to startup after a facility shutdown.
  - The pressure drop across the biofilter, in inches of water, on a daily basis.
  - The gas temperature of at the inlet of the biofilter, on a daily basis.
  - The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - The daily operating hours for this emissions unit, in hours per day.
  - The rolling 365-day summation of the operating hours for this emissions unit.
  - The rolling 365-day summation of the startup operating hours for emissions units P003 and P004.
  - The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - The results of the gas chromatograph analyses.
  - The calculated hourly VOC emission rate for each gas sample.
  - The average hourly VOC emission rate for the inlet of the control system, for the outlet of the control system, and for the outlet of the facility ventilation stack.
  - Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - The VOC emission removal efficiency.
  - Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - The rolling, 15-day, average VOC emission removal efficiency.
  - The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. An identification of each day during which any photochemically reactive materials were employed in this emissions unit, and the actual amount, in pounds per day, of photochemically reactive materials employed in this emissions unit for each such day.
  - b. An identification of each day during which the combined rolling 365-day operating hours for emissions units P003 and P004 exceeded 12,000 hours per year, and the actual rolling 365-day operating hours for emissions units P003 and P004 for each such day.
  - c. An identification of each rolling 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day during startup periods during which the average VOC emission removal efficiency was less than 50% and the VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008 exceeded 66.2 pounds per hour, and the actual average VOC emission removal efficiency and the actual VOC emissions for emissions units P001, P002, P003, P004, P005, P007, and P008 for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P003 and P004 exceeded 300 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown) for emissions units P003 and P004.
  - c. The total VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 6.8 lbs/hr of VOC

Applicable Compliance Method:

The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.

The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.

- b. Emission Limitation: 0.76 lb/hr of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- c. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

- d. Emission Limitation: 90% removal efficiency of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- e. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

- f. Emission Limitation: 5.64 tons/year of hydrogen sulfide for emissions units P003, P004, P005, and P007

Applicable Compliance Method:

Compliance shall be determined by multiplying the hydrogen sulfide pounds per hour emission rate for emissions units P003, P004, P005, P007 in accordance with the most recent compliance stack test, times operating hours, and dividing by 2000 pounds per ton.

- g. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds VOC per hour for emissions units P001, P002, P003, P004, P005, P007, and P008 during startup period

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

## V. Testing Requirements (continued)

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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC and hydrogen sulfide emission limitations, and VOC and hydrogen sulfide control efficiencies for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC and hydrogen sulfide: US EPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- 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 Ohio EPA Northeast District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction or failure in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P005 (P005)

**Activity Description:** CL1

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Cellulose Sponge Cloth Line # 1 and support equipment (sponge mass hopper and three circulation tanks) with Biofiltration System and Packed Bed Scrubber	OAC rule 3745-31-05 (D) PTI No. 02-9121	1.92 pounds of VOC per hour.  0.21 pound of hydrogen sulfide per hour.
		See sections A.I.2.b - A.I.2.f, sections A.II.1 - A.II.3, section A.II.7, and sections A.VI.1 of these terms and conditions.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).
	OAC rule 3745-21-07 (G)(2)	Exempt, see section A.I.2.a of these terms and conditions.
	40 CFR Part 63, subpart UUUU	See sections A.IV.6 and A.IV.7 of these terms and conditions.

##### 2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide) and 90% of hydrogen sulfide.
- 2.c Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## 2. Additional Terms and Conditions (continued)

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 420 hours in any 365-day period for emissions units P001, P002, P005, P007, and P008.
- 2.e** The emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons VOC per year and 5.64 tons hydrogen sulfide per year, based upon a rolling 365-day summation.
- 2.f** The emissions from emissions units P003, P004, P005, and P007 shall not exceed 5.64 tons hydrogen sulfide per year.

## II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 8,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain an 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008 provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while the emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, all process carbon disulfide and hydrogen sulfide emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall kept the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
6. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:
  - a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.
  - b. A minimum of one gas sample shall be collected at the inlet of the control system, one at the outlet of the control system and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.
  - c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

- d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- a. The date and an indication as to whether or not any shift in the day is exempted due to startup after a facility shutdown.
  - b. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - c. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - e. The daily operating hours for this emissions unit, in hours per day.
  - f. The rolling 365-day summation of the operating hours for this emissions unit.
  - g. The rolling 365-day summation of the startup period operating hours for emissions units P001, P002, P005, P007, and P008.
  - h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - j. The results of the gas chromatograph analyses.
  - k. The calculated hourly VOC emission rate for each gas sample.
  - l. The average hourly VOC emission rate for the inlet of the control system, for the outlet of the control system, and for the outlet of the facility ventilation stack.
  - m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - n. The VOC emission removal efficiency.
  - o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - p. The rolling, 15-day, average VOC emission removal efficiency.
  - q. The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information for this emissions unit:
  - a. An identification of each day during which any photochemically reactive materials were employed, and the actual amount, in pounds per day, of photochemically reactive materials employed.
  - b. An identification of each day during which the rolling 365-day operating hours exceeded 8,000 hours per year, and the actual rolling 365-day operating hours for each such day.
  - c. An identification of each rolling, 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day of startup periods during which the average VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 66.2 pounds per hour and the average VOC emission removal efficiency was less than 50%, and the actual average hourly VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008 and the actual average VOC emission removal efficiency for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P001, P002, P005, P007, and P008 exceeded 420 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown) for emissions units P001, P002, P005, P007, and P008.
  - c. The total VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 1.92 lbs/hr of VOC

Applicable Compliance Method:

The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.

The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.

- b. Emission Limitation: 0.21 lb/hr of hydrogen sulfide

Applicable Compliance Method:

The pound per hour limitation was developed based upon maximum uncontrolled hydrogen sulfide emission rate from this emissions unit and 90% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.

The maximum uncontrolled hourly hydrogen sulfide emission rate was determined and submitted to Ohio EPA by permittee. The determination was based upon maximum process capacity and an assumption that 100% hydrogen sulfide, generated by operating this emissions unit, emit to the air through control system.

- c. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

- d. Emission Limitation: 90% removal efficiency of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- e. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

- f. Emission Limitation: 5.64 tons/year of hydrogen sulfide for emissions units P003, P004, P005, and P007

Applicable Compliance Method:

Compliance shall be determined by multiplying the hydrogen sulfide pounds per hour emission rate for emissions units P003, P004, P005, and P007 in accordance with the most recent compliance stack test, times operating hours, and dividing by 2000 pounds per ton.

## V. Testing Requirements (continued)

g. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds VOC per hour for emissions units P001, P002, P003, P004, P005, P007, and P008 during startup period

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC and hydrogen sulfide emission limitations, and VOC and hydrogen sulfide control efficiencies for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC and hydrogen sulfide: US EPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

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 Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction or failure in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P007 (P007)

**Activity Description:** BS1

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sponge Block Line and support equipment (sponge mass hopper and three circulation tanks) with Biofiltration System and Packed Bed Scrubber	OAC rule 3745-31-05 (D) PTI No. 02-9121	10.35 pounds of VOC per hour.  0.06 pound of hydrogen sulfide per hour.
	OAC rule 3745-21-07 (G)(2)	See sections A.I.2.b - A.I.2.f, sections A.II.1 - A.II.3, section A.II.7, and sections A.VI.1 of these terms and conditions.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).
	40 CFR Part 63, subpart UUUU	Exempt, see section A.I.2.a of these terms and conditions.  See sections A.IV.6 and A.IV.7 of these terms and conditions.

##### 2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide) and 90% of hydrogen sulfide.
- 2.c Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## 2. Additional Terms and Conditions (continued)

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 420 hours in any-365 day period for emissions units P001, P002, P005, P007, and P008.
- 2.e** The emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons VOC per year and 5.64 tons hydrogen sulfide per year, based upon a rolling 365-day summation.
- 2.f** The emissions from emissions units P003, P004, P005, and P007 shall not exceed 5.64 tons hydrogen sulfide per year.

## II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 8,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain an 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008 provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while the emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, all process carbon disulfide and hydrogen sulfide emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall kept the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
6. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:
  - a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.
  - b. A minimum of one gas sample shall be collected at the inlet of the control system, one at the outlet of the control system, and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.
  - c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

- d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- a. The date and an indication as to whether or not any shift in the day is exempted due to startup after a facility shutdown.
  - b. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - c. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - e. The daily operating hours for this emissions unit, in hours per day.
  - f. The rolling 365-day summation of the operating hours for this emissions unit.
  - g. The rolling 365-day summation of the startup period operating hours for emissions units P001, P002, P005, P007, and P008.
  - h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - j. The results of the gas chromatograph analyses.
  - k. The calculated hourly VOC emission rate for each gas sample.
  - l. The average hourly VOC emission rate for the inlet of the control system, for the outlet of the control system and for the facility ventilation stack.
  - m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - n. The VOC emission removal efficiency.
  - o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - p. The rolling, 15-day, average VOC emission removal efficiency.
  - q. The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. An identification of each day during which any photochemically reactive materials were employed in this emissions unit, and the actual amount, in pounds per day, of photochemically reactive materials employed in this emissions unit for each such day.
  - b. An identification of each day during which the rolling 365-day operating hours for this emissions unit exceeded 8,000 hours per year, and the actual rolling 365-day operating hours for this emissions unit for each such day.
  - c. An identification of each rolling 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day during startup periods during which the average VOC emission removal efficiency was less than 50% and the VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008 exceeded 66.2 pounds per hour, and the actual average VOC emission removal efficiency and the actual VOC emissions for emissions units P001, P002, P003, P004, P005, P007, and P008 for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P001, P002, P005, P007, and P008 exceeded 420 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown) for emissions units P001, P002, P005, P007, and P008.
  - c. The total VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 10.35 lbs/hr of VOC

Applicable Compliance Method:

The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.

The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.

- b. Emission Limitation: 0.06 lb/hr of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- c. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

- d. Emission Limitation: 90% removal efficiency of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.2 of these terms and conditions.

- e. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.9 of these terms and conditions.

- f. Emission Limitation: 5.64 tons/year of hydrogen sulfide for emissions units P003, P004, P005, and P007

Applicable Compliance Method:

Compliance shall be determined by multiplying the hydrogen sulfide pounds per hour emission rate for emissions units P003, P004, P005, and P007 in accordance with the most recent compliance stack test, times operating hours, and dividing by 2000 pounds per ton.

## V. Testing Requirements (continued)

g. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds VOC per hour for emissions units P001, P002, P003, P004, P005, P007, and P008 during startup period

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

h. Emission Limitation: the backup packed bed scrubber shall operate 80% of the days during the "high ozone" period from May 1 to September 1 for the years 1999, 2000, and 2001.

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirement as specified in section A.III.8 of these terms and conditions.

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 6 months prior to permit expiration or 60 days after the emissions units attains its maximum production rate, whichever come first.

b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC and hydrogen sulfide emission limitations, and VOC and hydrogen sulfide control efficiencies for the air pollution control system.

c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC and hydrogen sulfide: US EPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

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 Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction or failure in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** P008 (P008)

**Activity Description:** R3

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Xanthation Reactor # 3 and support equipment (200-gallon steeping caustic tank, 200-gallon carbon disulfide batch tank, 50-gallon water tank) with Biofiltration System and Packed Bed Scrubber.	OAC rule 3745-31-05 (D) PTI No. 02-9121	0.2 pound of VOC per hour.  See sections A.I.2.b - A.I.2.e, sections A.II.1 - A.II.3, section A.II.7, and section A.VI.1 of these terms and conditions.
	OAC rule 3745-21-07 (G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).  Exempt, see section A.I.2.a of these terms and conditions.
	40 CFR Part 63, subpart UUUU	See sections A.IV.6 and A.IV.7 of these terms and conditions.

**2. Additional Terms and Conditions**

- 2.a** This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b** The emissions generated from this emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% of VOC (i.e., carbon disulfide).
- 2.c** Except as specified in paragraph A.I.2.d of these terms and conditions, compliance with the applicable limit for VOC (i.e., carbon disulfide) shall be determined based on the arithmetic average of the preceding fifteen(15) days' average control efficiency.

## 2. Additional Terms and Conditions (continued)

- 2.d** The control efficiency requirement for VOC (i.e., carbon disulfide) shall not apply to the following periods:
- i. For a period not longer than the one specified in paragraph A.I.2.d.ii of these terms and conditions, during the startup of the biofilter control system after a facility shutdown, provided that either:
    - (a) during the startup period, the average removal efficiency of VOC shall be at least fifty percent (50%) by weight based on an arithmetic daily average of control efficiency; or
    - (b) the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 66.2 pounds per hour.
  - ii. The total startup period after a facility shutdown shall not exceed 420 hours in any-365 day period for emissions units P001, P002, P005, P007, and P008.
- 2.e** The VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 shall not exceed 99.4 tons per year, based upon a rolling 365-day summation.

## II. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 8,000, based upon a rolling, 365-day summation of the operating hours.
2. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system cannot attain an 80% overall reduction in VOC by weight, additional limitations in operating hours shall be imposed on emissions units P001, P002, P003, P004, P005, P007 and P008 in order to maintain an annual VOC emission rate of less than 99.4 tons per year.
3. Notwithstanding the operational limitation in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than an 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to increase the annual operating hours for emissions units P001, P002, P003, P004, P005, P007, and P008 provided that the VOC emission rate is maintained at equal to or less than 99.4 tons per year.
4. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while this emissions unit is in operation. This range may be reestablished when compliance with the VOC control requirement is demonstrated by emission testing.
5. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
6. The pH of the back-up packed bed scrubber liquor shall be maintained within a range of 10 to 13 while the packed tower scrubber is in operation.
7. For dispersion purposes, all process emissions generated from this emissions unit shall be exhausted through the 155-foot stack, at all times.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01 (C)(5).
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the biofilter while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter when this emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while this emissions unit is in operation. The pH monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
5. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA-approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
6. The permittee shall maintain a log or record of operating time for the capture (collection) system, each control device, monitoring equipment, and the associated emissions unit.
7. The permittee shall determine the average hourly VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008, and the average daily VOC emission removal efficiency for the air pollution control system as follows:

a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.

b. A minimum of one gas sample shall be collected at the inlet of the control system, one at the outlet of the control system, and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.

c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each pair of gas samples were collected.

d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

### III. Monitoring and/or Record Keeping Requirements (continued)

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

$E_{in}$  = average inlet VOC emission rate, in pounds per hour.

$E_{out}$  = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system ( $E_{in}$ ) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system ( $E_{out}$ ).

8. The permittee shall collect and record the following information each day:
- a. The date and an indication as to whether or not any shift in the day is exempted due to startup after a facility shutdown.
  - b. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - c. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - e. The daily operating hours for this emissions unit, in hours per day.
  - f. The rolling 365-day summation of the operating hours for this emissions unit.
  - g. The rolling 365-day summation of the startup period operating hours for emissions units P001, P002, P005, P007, and P008.
  - h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
  - i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
  - j. The results of the gas chromatograph analyses.
  - k. The calculated hourly VOC emission rate for each gas sample.
  - l. The average hourly VOC emission rate for the inlet of the control system, for the outlet of the control system, and for the facility ventilation stack.
  - m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
  - n. The VOC emission removal efficiency.
  - o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
  - p. The rolling, 15-day, average VOC emission removal efficiency.
  - q. The VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information for this emissions unit:
  - a. An identification of each day during which any photochemically reactive materials were employed, and the actual amount, in pounds per day, of photochemically reactive materials employed.
  - b. An identification of each day during which the rolling 365-day operating hours exceeded 8,000 hours per year, and the actual rolling 365-day operating hours for each such day.
  - c. An identification of each rolling, 15-day period of time during which the average VOC emission removal efficiency was less than 80% during normal operation, and the actual average VOC emission removal efficiency for each such 15-day period.
  - d. An identification of each day of startup periods during which the average VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 66.2 pounds per hour and the average VOC emission removal efficiency was less than 50%, and the actual average hourly VOC emission rate for emissions units P001, P002, P003, P004, P005, P007, and P008 and the actual average VOC emission removal efficiency for each such day.
  - e. An identification of each day of startup periods during which the total startup operating hours for emissions units P001, P002, P005, P007, and P008 exceeded 420 hours per rolling 365-day period, and the actual rolling 365-day period startup operating hours for each such day.
  - f. An identification of each day during which the VOC emissions from emissions units P001, P002, P003, P004, P005, P007, and P008 exceeded 99.4 tons per year based upon a rolling 365-day summation, and the actual VOC emissions for each such day.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following biofilter parameters were not maintained at the required levels as specified in section A.II.4 and A.II.5 of these terms and conditions:
  - a. The static pressure drop across the biofilter.
  - b. The average inlet temperature to the biofilter.
3. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the backup packed bed scrubber liquor pH did not comply with the pH requirements as specified in section A.II.6 of these terms and conditions.
4. All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.
5. The permittee shall submit annual reports which summarize the following information:
  - a. The total operating hours for this emissions unit.
  - b. The total hours of operation under the startup periods (from a plant shutdown) for emissions units P001, P002, P005, P007, and P008.
  - c. The annual VOC emissions from emissions units P001, P002, P003, P004, P005, P007 and P008, in tons.
  - d. The total number of days the backup packed bed scrubber was operated.

These reports shall include the calculations, shall be submitted by February 1 of each year, and shall cover the previous calendar year.

#### IV. Reporting Requirements (continued)

6. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
7. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation: 0.2 lb/hr VOC  
  
Applicable Compliance Method:  
The pound per hour limitation was developed based upon the maximum uncontrolled VOC emission rate from this emissions unit and the required 80% removal efficiency. Therefore, provided compliance is shown with the control system removal efficiency requirement, compliance will also be shown with the hourly limitation.  
  
The maximum uncontrolled hourly VOC emission rate was determined and submitted to Ohio EPA by the permittee. The determination was based upon maximum process capacity and an assumption that 100% of the VOC generated by this emissions unit is vented to the control system.
  - b. Emission Limitation: 80% removal efficiency of VOC  
  
Applicable Compliance Method:  
Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.
  - c. Emission Limitation: 99.4 tons/year of VOC for emissions units P001, P002, P003, P004, P005, P007, and P008  
  
Applicable Compliance Method:  
Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.
  - d. Emission Limitation: 50% by weight VOC removal efficiency or 66.2 pounds/hour of VOC for emissions units P001, P002,, P003, P004, P005, P007, and P008 during startup period  
  
Applicable Compliance Method:  
Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.
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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation and VOC control efficiency for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC: US EPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.  
  
Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.  
  
The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - 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 Ohio EPA Northeast District Office.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The permittee shall develop and follow an approved preventive maintenance plan for the biofiltration control system and the backup packed tower scrubber. This plan shall be designed to prevent, detect and correct malfunctions or system failures which could result in emissions exceeding the limits of this permit.

This plan shall specify, at a minimum, the following:

- a. A comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of the replacement parts which will be maintained in inventory.
- b. An identification of the operating inlet and outlet variables of the biofiltration system that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction.
- c. A description of corrective procedures that will be taken as expeditiously as practical in the event of a malfunction or failure in order to maintain compliance with the emission limitations of this permit.

A copy of this plan shall be submitted to the Ohio EPA Northeast District Office for review and approval within sixty (60) days from the issuance of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P009 (P009)

**Activity Description:** R4

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Xanthation Reactor # 4 and support equipment (200-gallon steeping caustic tank, 200-gallon carbon disulfide batch tank, 50-gallon water tank) with Biofiltration System and Packed Bed Scrubber.	OAC rule 3745-31-05(A)(3) PTI 02-13356	Volatile organic compound emissions shall not exceed 0.2 pound per hour and 0.88 ton per year.  See section A.I.2.b.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.a.
	40 CFR Part 63, subpart UUUU	See sections A.IV.7 and A.IV.8 of these terms and conditions.

##### 2. Additional Terms and Conditions

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5).
- 2.b This emissions unit shall be vented to the biofiltration system at all times. If necessary the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% VOC (i.e. carbon disulfide) vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding fifteen (15) consecutive days' average removal efficiency.

##### II. Operational Restrictions

1. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while the emissions unit is in operation.
2. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
3. The sulfate concentration of the biofilter's discharge liquor shall be maintained below 5%.
4. The pH of the backup scrubber liquor shall be maintained within a range of 10 to 13.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofilter while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the biofilter on a daily basis.
3. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter and when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall record the temperature on a daily basis.
4. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while the emissions unit is in operation. The pH monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).

5. The permittee shall monitor the conductivity of the biofilter's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.
6. The permittee shall maintain a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

### III. Monitoring and/or Record Keeping Requirements (continued)

7. The permittee shall determine the average hourly VOC emissions from this emissions unit and the average daily VOC emission removal efficiency for the air pollution control system as follows:

a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.

b. A minimum of one gas sample shall be collected at the inlet and outlet of the control system and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.

c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-9})(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

E<sub>in</sub> = average inlet VOC emission rate, in pounds per hour.

E<sub>out</sub> = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system (E<sub>in</sub>) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system (E<sub>out</sub>).

8. The permittee shall properly operate and maintain a gas chromatograph which measures the VOC emissions and control efficiency at the inlet and outlet of the air pollution control system and the outlet of the facility ventilation stack when this emissions unit is in operation. Units shall be in parts per million by volume. The gas chromatograph shall be capable of accurately measuring the desired parameter. The gas chromatograph shall be calibrated in accordance with the Ohio EPA-approved calibration plan. The gas chromatograph shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

### **III. Monitoring and/or Record Keeping Requirements (continued)**

9. The permittee shall collect and record the following information each day:
  - a. The pressure drop across the biofilter, in inches of water, on a daily basis.
  - b. The gas temperature of at the inlet of the biofilter, on a daily basis.
  - c. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
  - d. The daily operating hours for this emissions unit, in hours per day.
  - e. The number of hours the required 80% removal for VOC was not attained
  - f. The results of the gas chromatograph analyses.
  - g. The calculated hourly VOC emission rate for each gas sample.
  - h. The average hourly VOC emission rate for the inlet of the control system, the outlet of the control system, and for the facility ventilation stack.
  - i. The VOC emission removal efficiency.
  - j. The rolling, 15-day, average VOC emission removal efficiency.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which any photochemically reactive materials were employed.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the biofilter did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports which identify all periods of time during which the average inlet temperature to the biofilter does not comply with the temperature limitation specified above.
4. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.
5. The permittee shall submit a deviation (excursion) reports that identify all periods of time during which the sulfate concentration of the biofilter's discharge liquor did not comply with the requirements specified above.
6. The permittee shall submit deviation (excursion) reports that identify each day during which the average VOC removal efficiency was less than 80% and the actual average VOC removal efficiency for each such day.

#### **IV. Reporting Requirements (continued)**

7. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
8. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

#### **V. Testing Requirements**

1. Emission Limitation: 0.2 lb/hr VOC

Applicable Compliance Method: Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 15, if required by the Ohio EPA.

## V. Testing Requirements (continued)

2. Emission Limitation: 0.88 ton VOC/yr

Applicable Compliance Method: Compliance shall be demonstrated by the following equation:

$$E = UER \times (1-RE) \times H \times 1/2000 \text{ (ton/pounds)}$$

where,

E = VOC emission rate ton/yr

UER = maximum uncontrolled emission rate of VOC, estimated by the permittee to be 1.0 lb/hr

RE = average annual VOC removal efficiency determined from the daily monitoring required in Section B.III.6. of this permit

H = operating hours of the emissions unit

3. 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 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation and VOC control efficiency for the air pollution control system.
  - c. The following test method(s) shall be employed to demonstrate compliance with the control efficiency limitation for VOC: US EPA reference methods 1-4 and 15, as specified in 40 CFR Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in above. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- 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 Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

**V. Testing Requirements (continued)**

4. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.9 of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** P010 (P010)  
**Activity Description:** CL2

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Cellulose Sponge Cloth Line # 2 and support equipment (sponge mass hopper and three circulation tanks) with Biofiltration System and Packed Bed Scrubber	OAC rule 3745-31-05(A)(3) PTI 02-13356	VOC: 2.88 lbs/hr  H2S: 0.32 lb/hr, 1.0 tons/yr  See A.I.2.b  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07 (G)(2).
	OAC rule 3745-31-05(D)	VOC: 9.9 tons per rolling 12-month period
	OAC rule 3745-21-07(G)(2)	See A.I.2.b Exempt, see A.I.2.a
	40 CFR Part 63, subpart UUUU	See sections A.IV.11 and A.IV.12 of these terms and conditions.

**2. Additional Terms and Conditions**

- 2.a** This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).
- 2.b** This emissions unit shall be vented to the biofiltration system at all times. If necessary, the permittee shall also use the packed bed scrubber in series with the biofiltration system. The air pollution control system(s) shall remove a minimum of 80% by weight of VOC (i.e. carbon disulfide) vented to it, and 90% of H2S at all times. Except as specified in Section A.I.2.c., this removal efficiency shall be determined based on the arithmetic average of the preceding fifteen (15) consecutive days' average removal efficiency.

**2. Additional Terms and Conditions (continued)**

- 2.c** The control efficiency requirements for VOC shall not apply during the startup of the biofilter control system after a facility shutdown provided that the following conditions are met:
- i. during the startup period, the average removal efficiency of VOC shall be at least 50% by weight, based on the arithmetic average of the preceding fifteen (15) consecutive days' average removal efficiency; or
  - ii. the hourly emission rate of VOC from this emissions unit shall not exceed 7.2 pounds per hour.
- 2.d** The exempt period of time allowed in Section A.I.2.c. shall not exceed 420 hours in any 12-month period.

**II. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 6245, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following the issuance of the permit to install, the permittee shall not exceed the operating hours levels specified in the following table:

Maximum Allowable  
Month(s) Cumulative Operating Hours

1	520
1-2	1040
1-3	1560
1-4	2080
1-5	2600
1-6	3120
1-7	3640
1-8	4160
1-9	4680
1-10	5200
1-11	5720
1-12	6245

After the first 12 calendar months of operation following the issuance of the permit to install, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

2. Notwithstanding the operational limitations in section A.II.1 of these terms and conditions, if the biofiltration system can attain greater than 80% overall reduction in VOC by weight, the permittee can apply in writing to the Ohio EPA to modify this permit to increase annual operating hours on the emissions unit P010 provided that the VOC emission rate is maintained at equal or less than 9.9 tons per year, based on a rolling 12-month summation.
3. The pressure drop across the biofilter shall be maintained within the range of 0.5 to 5.0 inches of water while the emissions unit is in operation.
4. The average gas temperature at the inlet of the biofilter shall not be more than 50 degrees Centigrade.
5. The sulfate concentration of the biofilter's discharge liquor shall be maintained below 5%.
6. The pH of the backup scrubber liquor shall be maintained between 10 and 13.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall maintain monthly records of the following information:
  - a. The operating hours for each month.
  - b. Beginning after the first 12 calendar months of operation following the issuance of the permit to install, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of the permit to install, the permittee shall record the cumulative operating hours for each calendar month.

3. The permittee shall maintain monthly records of the following information:
  - a. The VOC emission rate (tons or pounds).
  - b. Beginning after the first 12 calendar months of operation following the issuance of the permit to install, the rolling, 12-month summation of the VOC emission rate (tons).

Also, during the first 12 calendar months of operation following the issuance of the permit to install, the permittee shall record the cumulative VOC emission rate for each calendar month.

4. The permittee shall maintain monthly records of the following information:
  - a. The number of hours that the biofilter operated during an exempted period from facility startups.
  - b. The number of hours that the biofilter operated during an exempted period from facility startups during the last 12-month period.
5. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofilter while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the biofilter on a daily basis.
6. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofilter and when the emissions unit is in operation. Units shall be in degrees Centigrade. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall record the temperature on a daily basis.
7. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the backup scrubber liquor while the emissions unit is in operation. The pH monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).

8. The permittee shall monitor the conductivity of the biofilter's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

### III. Monitoring and/or Record Keeping Requirements (continued)

9. The permittee shall maintain a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
10. The permittee shall determine the average hourly VOC emissions from this emissions unit and the average daily VOC emission removal efficiency for the air pollution control system as follows:

a. The gas chromatograph shall be used to measure the VOC emissions at the inlet and outlet of the control system (i.e., biofilter and backup scrubber) and the outlet of the facility ventilation stack.

b. A minimum of one gas sample shall be collected at the inlet and outlet of the control system and one at the outlet of the facility ventilation stack every 8 hours of each day for analysis using the gas chromatograph.

c. The following equation shall be used to determine the hourly VOC emission rate for each gas sample:

$$E = (2.59 \text{ E-}9)(M)(\text{ppm})(Q)(60 \text{ min/hr})$$

where,

E = carbon disulfide emission rate, pounds per hour.

2.59 E-9 = density, lb/scf.

M = molecular weight (CS<sub>2</sub> = 76.1)

ppm = parts per million, dry basis, as measured by the gas chromatograph.

Q = stack gas flow rate, dscf/min, at the time each gas sample was collected.

d. The average hourly VOC emission rate for each day shall be the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of control system added to the arithmetic average of the 3 calculated hourly VOC emission rates for the outlet of the facility ventilation stack.

e. The daily VOC emission removal efficiency rate shall be calculated in accordance with the following equation:

$$RE = (E_{in} - E_{out})(100\%)/E_{in}$$

where,

RE = daily VOC emission removal efficiency, in percentage.

E<sub>in</sub> = average inlet VOC emission rate, in pounds per hour.

E<sub>out</sub> = average outlet VOC emission rate, in pounds per hour.

The daily average VOC emission removal efficiency rate shall be determined using the arithmetic average of the calculated hourly VOC emission rates for the inlet of the control system (E<sub>in</sub>) and the arithmetic average of the calculated hourly VOC emission rates for the outlet of the control system (E<sub>out</sub>).

### III. Monitoring and/or Record Keeping Requirements (continued)

11. The permit to install for this emissions unit P010 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Carbon Disulfide

TLV (ug/m3): 31,000

Maximum Hourly Emission Rate (lbs/hr): 2.88

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.35

MAGLC (ug/m3): 738

Pollutant: Hydrogen Sulfide

TLV (ug/m3): 14,000

Maximum Hourly Emission Rate (lbs/hr): 0.32

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.82

MAGLC (ug/m3): 333.3

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

### III. Monitoring and/or Record Keeping Requirements (continued)

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and,
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**12.** The permittee shall collect and record the following information each day:

- a. The date and an indication as to whether or not any shift of the day is exempted due to startup after a facility shutdown.
- b. The pressure drop across the biofilter, in inches of water, on a daily basis.
- c. The gas temperature of at the inlet of the biofilter, on a daily basis.
- d. The pH of the backup scrubber liquor on a daily basis (on any day the scrubber is operated).
- e. The daily operating hours for this emissions unit, in hours per day.
- f. The rolling 365-day summation of the operating hours for this emissions unit.
- g. The rolling 365-day summation of the startup period operating hours for emissions unit P010.
- h. The number of hours the required 80% removal for VOC was not attained (after a startup from a plant shutdown).
- i. The number of hours over the preceding 365-day period during which the required 80% removal rate for VOC was not attained after startups from plant shutdowns.
- j. The results of the gas chromatograph analyses.
- k. The calculated hourly VOC emission rate for each gas sample.
- l. The average hourly VOC emission rate for the inlet of the control system, the outlet of the control system, and for the facility ventilation stack.
- m. Whether or not the average hourly VOC emission rate is for a startup operating period and why.
- n. The VOC emission removal efficiency.
- o. Whether or not the VOC emission removal efficiency is for a startup operating period and why.
- p. The rolling, 15-day, average VOC emission removal efficiency.
- q. The VOC emission rate for emissions unit P010, in tons per rolling 365-day period.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which any photochemically reactive materials were employed.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the issuance of the permit to install, all exceedances of the maximum allowable cumulative operating hours levels.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month VOC emission limitation.
4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling 12-month operating hours limitation for exempted periods from facility startups.
5. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the biofilter did not comply with the allowable range specified above.
6. The permittee shall submit deviation (excursion) reports which identify all periods of time during which the average inlet temperature to the biofilter does not comply with the temperature limitation specified above.
7. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.
8. The permittee shall submit a deviation (excursion) reports that identify all periods of time during which the sulfate concentration of the biofilter's discharge liquor did not comply with the requirements specified above.
9. The permittee shall submit deviation (excursion) reports that identify each day during which the average VOC removal efficiency was less than 80% and the actual average VOC removal efficiency for each such day.
10. The permittee shall submit deviation (excursion) reports that identify each day during which the average H<sub>2</sub>S removal efficiency was less than 90% and the actual average H<sub>2</sub>S removal efficiency for each such day.
11. Within 120 days after promulgation of 40 CFR 63 Subpart UUUU, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. The name and mailing address of the permittee.
  - b. The physical location of the source if it is different from the mailing address.
  - c. Identification of the relevant MACT standard and the permittee's compliance date.
  - d. A brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant.
  - e. A statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.

#### IV. Reporting Requirements (continued)

12. Within 60 days following completion of the required compliance demonstration activity specified in the 40 CFR 63 Subpart UUUU, the permittee shall submit a notification of compliance status that contains the following information:
  - a. The methods used to determine compliance.
  - b. The results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted.
  - c. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods.
  - d. The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR 63 Subpart UUUU.
  - e. An analysis demonstrating whether the affected source is a major source or an area source.
  - f. A description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method.
  - g. A statement of whether or not the permittee has complied with the requirements of 40 CFR 63 Subpart UUUU.

#### V. Testing Requirements

1. Emission Limitation: 9.9 tons VOC/rolling 12 month period

Applicable Compliance Method: Compliance with this limit shall be assumed provided that operating hours of this emissions unit do not exceed 6245 hours per rolling 12-month period and the air pollution control system removes at least 80% of the VOC emissions at all times.

The permittee shall determine monthly its VOC emission rate by the following equation:

$$E = UER \times (1-RE) \times H \times 1/2000 \text{ (ton/pounds)}$$

where,

E = VOC emission rate ton/month

UER = maximum uncontrolled emission rate of VOC, estimated by the permittee to be 14.4 lbs/hr

RE = average monthly VOC removal efficiency determined from the daily monitoring required in Section A.III.10. of this permit

H = operating hours per month of the emissions unit

The permittee shall determine the rolling 12-month VOC emission rate by summing monthly VOC emission rates for each 12-month period.

2. Emission Limitation: 2.88 lbs/hr VOC (i.e. carbon disulfide)

Applicable Compliance Method: Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 15, if required by the Ohio EPA.

**V. Testing Requirements (continued)**

3. Emission Limitation: 0.32 lb/hr H<sub>2</sub>S

Applicable Compliance Method: Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 15, if required by the Ohio EPA.

4. Emission Limitation: 1.0 tons H<sub>2</sub>S/yr

Applicable Compliance Method:

Compliance shall be demonstrated by the following equation:

$$E = UER \times (1-RE) \times H \times 1/2000 \text{ (ton/pounds)}$$

where,

$$E = \text{H}_2\text{S emission rate ton/yr}$$

UER = maximum uncontrolled emission rate of VOC, estimated by the permittee to be 3.2 lbs/hr

RE = annual H<sub>2</sub>S removal efficiency determined from the most recent compliance test

H = operating hours of the emissions unit

5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- The emission testing shall be conducted within 90 days after startup of this emissions unit.
  - The emission testing shall be conducted to demonstrate compliance with the control efficiency requirement for VOC (i.e. CS<sub>2</sub>) and H<sub>2</sub>S.
  - The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 1-4 and 15. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - 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 Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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.

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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

**V. Testing Requirements (continued)**

6. Emission Limitation: 80% removal efficiency of VOC

Applicable Compliance Method:

Compliance shall be determined in accordance with the record keeping requirements as specified in section A.III.12 of these terms and conditions.

7. Emission Limitation: 90% removal efficiency of hydrogen sulfide

Applicable Compliance Method:

Compliance shall be determined in accordance with the test methods and procedures in section A.V.5 of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

Facility Name: **Nylonge**  
Facility ID: **02-47-04-0822**

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