State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
LORAIN COUNTY

Street Address: Mailing Address: Lazarus Gov. Center
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Application No: 02-18240

DATE: 12/26/2003

Nylonge Co.
Dominique Alibeckoff
1301 Lowell St
Elyria, OH 44035

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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 within thirty (30) days after the notice of the Directors 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. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

Michael W. Ahern

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

CC: USEPA **NEDO**

FINAL PERMIT TO INSTALL 02-18240

Application Number:	02-18240
APS Premise Number:	0247040822
Permit Fee:	**$3000**
Name of Facility:	Nylonge Co.
Person to Contact:	Dominique Alibeckoff
Address:	1301 Lowell St Elyria, OH 44035

Location of proposed air contaminant source(s) [emissions unit(s)]:
1301 Lowell St
Elyria, Ohio

Description of proposed emissions unit(s):
Increased production and hours of operation at several emissions units.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. 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. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, 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. 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.

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 are true, accurate, and complete.

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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06**.**
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

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.

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.

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.

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. 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.

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. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. 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.

9. Compliance Requirements

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

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 ORC section 3704.08.

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.

10. Permit To Operate Application

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

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. 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.)

3. Permit Transfers

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. 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.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
Organic Compound	222.5
Hydrogen Sulfide	9.95

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. Compliance with 40 CFR, Part 63, Subpart UUUU.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001 - Xanthation reactor No. 1	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 0.25 pound per hour and 1.1 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions

of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control

system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

    h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

   a. Company name and address

   b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

   c. Date of report and beginning and ending dates of the reporting period.

   d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 0.25 pound per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 1.1 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

6. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

TCE = BI/(BI + V) Where

TCE = total biofiltration capture efficiency
BI = concentration at inlet to biofiltration unit
V = concentration at inlet to plant ventilation stack

7. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

8. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
ECS = emission rate of carbon disulfide in stream, lb/hr
EH = emission rate of hydrogen sulfide in stream, lb/hr
MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
ECOS = emission rate of carbonyl sulfide in stream, lb/hr
MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

9. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

10. The performance test must be completed no later than 180 calendar days after the initial compliance date.

11. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001 - Xanthation reactor No. 1	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

   Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.25 Facility - 50.8

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

   MAGLC (ug/m3): 741.43

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P002 - Xanthation reactor No. 2	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 0.25 pound per hour and 1.1 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions

of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control

system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

    h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

   a. Company name and address

   b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

   c. Date of report and beginning and ending dates of the reporting period.

   d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 0.25 pound per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 1.1 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

6. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

   Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

   TCE = BI/(BI + V) Where

   TCE = total biofiltration capture efficiency
   BI = concentration at inlet to biofiltration unit
   V = concentration at inlet to plant ventilation stack

7. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

   Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

8. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

   ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

   ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
   ECS = emission rate of carbon disulfide in stream, lb/hr
   EH = emission rate of hydrogen sulfide in stream, lb/hr
   MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole

MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
ECOS = emission rate of carbonyl sulfide in stream, lb/hr
MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

9. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

10. The performance test must be completed no later than 180 calendar days after the initial compliance date.

11. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P002 - Xanthation reactor No. 2	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Emissions Unit ID: P002

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.25 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P003 - Continuous sponge cooking machine No. 1	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 8.5 pounds per hour and 37.22 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. Hydrogen sulfide emissions shall not exceed 0.76 pound per hour and 3.33 tons per year#. #Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour and 9.95 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

Emissions Unit ID: P003

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

a. Company name and address

b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

c. Date of report and beginning and ending dates of the reporting period.

d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 8.5 pounds per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 37.22 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be

demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: Hydrogen sulfide emissions shall not exceed 0.76 pound per hour

Applicable Compliance Method: Compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

6. Emission Limitation: Hydrogen sulfide emissions shall not exceed 3.33 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

7. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

8. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 9.95 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

9. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

10. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

TCE = BI/(BI + V) Where

TCE = total biofiltration capture efficiency
BI = concentration at inlet to biofiltration unit
V = concentration at inlet to plant ventilation stack

11. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

12. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
ECS = emission rate of carbon disulfide in stream, lb/hr
EH = emission rate of hydrogen sulfide in stream, lb/hr
MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
ECOS = emission rate of carbonyl sulfide in stream, lb/hr
MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

13. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

14. The performance test must be completed no later than 180 calendar days after the initial compliance date.

15. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P003 - Continuous sponge cooking machine No. 1	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Emissions Unit ID: P003

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 8.5 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

Pollutant: Hydrogen Sulfide

TLV (mg/m3): 13.91

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.76 Facility - 2.27

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 3.13

MAGLC (ug/m3): 331.19

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P004 - Continuous sponge cooking machine No. 2	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 8.5 pounds per hour and 37.22 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. Hydrogen sulfide emissions shall not exceed 0.76 pound per hour and 3.33 tons per year#. #Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour and 9.95 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

Emissions Unit ID: P004

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

    a. Company name and address

    b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and

information in the report are true, accurate, and complete.

c. Date of report and beginning and ending dates of the reporting period.

d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 8.5 pounds per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 37.22 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: Hydrogen sulfide emissions shall not exceed 0.76 pound per hour

   Applicable Compliance Method: Compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

6. Emission Limitation: Hydrogen sulfide emissions shall not exceed 3.33 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

7. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

8. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 9.95 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

9. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

10. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

    Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

    TCE = BI/(BI + V) Where

    TCE = total biofiltration capture efficiency
    BI = concentration at inlet to biofiltration unit
    V = concentration at inlet to plant ventilation stack

11. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

    Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

12. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

    ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

    ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
    ECS = emission rate of carbon disulfide in stream, lb/hr
    EH = emission rate of hydrogen sulfide in stream, lb/hr
    MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
    MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
    ECOS = emission rate of carbonyl sulfide in stream, lb/hr
    MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

13. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

14. The performance test must be completed no later than 180 calendar days after the initial compliance date.

15. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no

deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P004 - Continuous sponge cooking machine No. 2	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Emissions Unit ID: P004

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 8.5 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

Pollutant: Hydrogen Sulfide

TLV (mg/m3): 13.91

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.76 Facility - 2.27

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 3.13

MAGLC (ug/m3): 331.19

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P005 - Sponge cloth machine No. 1	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 2.76 pounds per hour and 12.1 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. Hydrogen sulfide emissions shall not exceed 0.25 pound per hour and 1.10 tons per year#. #Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour and 9.95 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

Emissions Unit ID: P005

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

    a. Company name and address

    b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and

information in the report are true, accurate, and complete.

c. Date of report and beginning and ending dates of the reporting period.

d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 2.76 pounds per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 12.1 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: Hydrogen sulfide emissions shall not exceed 0.25 pound per hour

   Applicable Compliance Method: Compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

6. Emission Limitation: Hydrogen sulfide emissions shall not exceed 1.10 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

7. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

8. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 9.95 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

9. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

10. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

    Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

    TCE = BI/(BI + V) Where

    TCE = total biofiltration capture efficiency
    BI = concentration at inlet to biofiltration unit
    V = concentration at inlet to plant ventilation stack

11. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

    Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

12. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

    ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

    ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
    ECS = emission rate of carbon disulfide in stream, lb/hr
    EH = emission rate of hydrogen sulfide in stream, lb/hr
    MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
    MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
    ECOS = emission rate of carbonyl sulfide in stream, lb/hr
    MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

13. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

14. The performance test must be completed no later than 180 calendar days after the initial compliance date.

15. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P005 - Sponge cloth machine No. 1	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Emissions Unit ID: P005

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 2.76 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

Pollutant: Hydrogen Sulfide

TLV (mg/m3): 13.91

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.25 Facility - 2.27

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 3.13

MAGLC (ug/m3): 331.19

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P007 - Sponge block line	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 25.88 pounds per hour and 113.34 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. Hydrogen sulfide emissions shall not exceed 0.12 pound per hour and 0.53 tons per year#. #Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour and 9.95 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

Emissions Unit ID: P007

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

    a. Company name and address

    b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and

information in the report are true, accurate, and complete.

c. Date of report and beginning and ending dates of the reporting period.

d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 25.88 pounds per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 113.34 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: Hydrogen sulfide emissions shall not exceed 0.12 pound per hour

   Applicable Compliance Method: Compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

6. Emission Limitation: Hydrogen sulfide emissions shall not exceed 0.53 ton per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

7. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

8. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 9.95 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

9. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

10. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

    Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

    TCE = BI/(BI + V) Where

    TCE = total biofiltration capture efficiency
    BI = concentration at inlet to biofiltration unit
    V = concentration at inlet to plant ventilation stack

11. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

    Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

12. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

    ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

    ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
    ECS = emission rate of carbon disulfide in stream, lb/hr
    EH = emission rate of hydrogen sulfide in stream, lb/hr
    MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
    MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
    ECOS = emission rate of carbonyl sulfide in stream, lb/hr
    MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

13. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

14. The performance test must be completed no later than 180 calendar days after the initial compliance date.

15. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee

have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P007 - Sponge block line	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

   Maximum Hourly Emission Rate (lbs/hr): Emission unit - 25.88 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

Pollutant: Hydrogen Sulfide

TLV (mg/m3): 13.91

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.12 Facility - 2.27

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 3.13

MAGLC (ug/m3): 331.19

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P008 - Xanthation reactor No. 3	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 0.25 pound per hour and 1.1 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions

of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control

system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

    h. Control device maintenance records

    i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

   a. Company name and address

   b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

   c. Date of report and beginning and ending dates of the reporting period.

   d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 0.25 pound per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 1.1 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

EF = (1- (BO/BI)); Where,

EF = removal efficiency of biofiltration units
BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

6. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

TCE = BI/(BI + V) Where

TCE = total biofiltration capture efficiency
BI = concentration at inlet to biofiltration unit
V = concentration at inlet to plant ventilation stack

7. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

8. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
ECS = emission rate of carbon disulfide in stream, lb/hr
EH = emission rate of hydrogen sulfide in stream, lb/hr
MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole

ECOS = emission rate of carbonyl sulfide in stream, lb/hr
MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

9. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

10. The performance test must be completed no later than 180 calendar days after the initial compliance date.

11. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P008 - Xanthation reactor No. 3	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.25 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P009 - Xanthation reactor No. 4	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 0.25 pound per hour and 1.1 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions

of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

Emissions Unit ID: P009

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control

system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

    h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

   a. Company name and address

   b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

   c. Date of report and beginning and ending dates of the reporting period.

   d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 0.25 pound per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 1.1 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

Applicable Compliance Method: The control efficiency shall be determined by the following equation:

EF = (1- (BO/BI)); Where,

EF = removal efficiency of biofiltration units
BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

6. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

TCE = BI/(BI + V) Where

TCE = total biofiltration capture efficiency
BI = concentration at inlet to biofiltration unit
V = concentration at inlet to plant ventilation stack

7. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

8. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
ECS = emission rate of carbon disulfide in stream, lb/hr
EH = emission rate of hydrogen sulfide in stream, lb/hr
MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole

MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
ECOS = emission rate of carbonyl sulfide in stream, lb/hr
MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

9. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

10. The performance test must be completed no later than 180 calendar days after the initial compliance date.

11. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P009 - Xanthation reactor No. 4	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Emissions Unit ID: P009

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.25 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P010 - Sponge cloth machine No. 2	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 4.16 pounds per hour and 18.24 tons per year.* * Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour and 222.5 tons per year. Hydrogen sulfide emissions shall not exceed 0.38 pound per hour and 1.66 tons per year#. #Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour and 9.95 tons per year. See section A.I.2.a through A.I.2.c
	OAC rule 3745-21-07(G)(2)	Exempt, see section A.I.2.d
	40 CFR, Part 63, Subpart UUUU	The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

Emissions Unit ID: P010

2. Additional Terms and Conditions

2.a This emissions unit shall be vented to a biofiltration system at all times. The air pollution control system shall remove a minimum of 80 % of organic compounds vented to it. This removal efficiency shall be determined based on the arithmetic average of the preceding sixty (60) consecutive days' average removal efficiency.

2.b The inlet to the biofiltration units shall capture a minimum of 85 % of all facility emissions of organic compounds and hydrogen sulfide. This capture efficiency shall be determined by monitoring the inlet concentrations of organic compounds and hydrogen sulfide to the biofiltration units and the inlet concentrations of organic compounds and hydrogen sulfide to the plant ventilation stack.

2.c While this emissions unit is in operation, a negative pressure shall be maintained within the manufacturing area of the facility which contains the emissions units.

2.d This emissions unit shall not employ organic liquids which are photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).

2.e All vent streams vented to a control device shall be routed through a closed-vent system.

2.f All closed-vent systems containing a bypass line that is able to divert a vent stream away from a control device shall secure the bypass in the closed position with a car-seal or lock and key type configuration and inspect the seal or closure mechanism at least once per month.

2.g Periods of planned routine maintenance of each control device, during which the control device does not meet the applicable emissions limit, must not exceed 240 hours per year.

2.h The permittee shall remain in compliance at all times, except during startup, shutdown, and malfunctions.

2.i The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR, Section 63.6 (e)(3)

II. Operational Restrictions

1. The pressure drop across the biofiltration system (from the inlet duct work to the biofiltration system to the inlet duct work of the back-up scrubber) shall be maintained within the range of 0.5 to 15.0 inches of water while the emissions unit is in operation.

2. The average gas temperature at the inlet of the biofiltration system shall not be more than 50 degrees Centigrade.

3. To ensure the sulfate concentration of each biofiltration systems discharge liquor remains below 5%, the conductivity of the discharge liquor shall not exceed 200 millisiemens.

4. The pH of the backup scrubber liquor, when operating, shall be maintained above10.

III. Monitoring and/or Recordkeeping 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 the following for the biofilter:

   a. the daily average biofilter inlet gas temperature;

   b. the daily average biofilter effluent pH;

   c. the daily average pressure drop

3. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the biofiltration system 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 biofiltration system on a daily basis.

4. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature at the inlet of the biofiltration system when the emissions unit is operating. 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.

5. When the caustic scrubber is operating, the permittee shall maintain the following:

   a. the daily average pressure drop;

   b. the daily average scrubber liquid flow rate;

   c. the daily average scrubber liquid pH; and,

   d. the daily average scrubber liquid conductivity.

6. The permittee shall monitor the conductivity of each biofiltration system's discharge liquor weekly. From this data, the permittee shall determine the sulfate concentration of the discharge liquor.

7. 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.

8. The permittee shall determine an average daily removal efficiency for the air pollution control system (i.e. biofiltration unit and backup scrubber) for VOC and hydrogen sulfide. The inlet to and outlet from the biofiltration system shall be monitored, at least once per shift, while the facility is operating, using a gas chromatograph. The daily removal efficiency shall be based on a minimum of three sets of samples.

9. The permittee shall determine an average daily emissions from the plant ventilation stack for VOC and hydrogen sulfide. The plant ventilation stack shall be monitored, at least once per shift, while the facility is operating, gathering three sets of samples, and within one hour of monitoring the biofiltration stack, using a gas chromatograph. This daily average shall be based on a minimum of three sets of samples.

10. The permittee shall ensure, once per shift, that the manufacturing area of the facility is kept under negative pressure.

11. The permittee shall inspect annually all closed-vent systems used to route emissions to a control device.

12. During start-up, shutdown and malfunctions, deviations are not violations so long as the permittee can demonstrate that operations were following the SSM plan.

13. All monitoring shall be continuous except for during startup, shutdown, or malfunctions

14. The permittee shall keep records, that are easily accessible, of the following for at least 5 years:

    a. Of each notification and report that is submitted

    b. All record related to start-up, shutdown, and malfunctions

    c. A site-specific monitoring plan

    d. Records of performance tests

    e. nitrogen unloading and storage systems

    f. Records of material balances

    g. Records of calculations

h. Control device maintenance records

i. Safety device records

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 biofiltration system 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 biofiltration system 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) report that identify all periods of time during which the sulfate concentration of the biofiltration system's discharge liquor did not comply with the requirements specified above.

6. In accordance with paragraph 3 of the General Terms and Conditions, the permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound removal efficiency from the biofiltration system was less than 80% and the actual average organic compound removal efficiency for each such day.

7. The permittee shall submit deviation (excursion) reports which identify any day during which the average organic compound capture efficiency of the biofiltration system was less than 85% and the actual average organic compound capture efficiency.

8. The permittee shall submit a deviation (excursion) report that identify all periods of time during which the pressure in the manufacturing area of the facility did not comply with the negative pressure requirement.

9. Compliance reports must contain the following information:

    a. Company name and address

    b. Statement by a responsible official, with that officials name, title and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and

information in the report are true, accurate, and complete.

c. Date of report and beginning and ending dates of the reporting period.

d. If a start-up, shutdown, or malfunction during the reporting period occurred

e. If no deviations occurred, a statement to that effect shall be made.

f. The total operating time of each emissions unit

g. The number, duration, and cause of any deviations that occurred as well as any corrective action taken.

10. The permittee shall report each instance in which continuous compliance was not demonstrated, each operating limit was exceeded. This includes periods of start-up, shutdown, and malfunctions.

V. Testing Requirements

1. Emission Limitation: Organic compound emissions shall not exceed 4.16 pounds per hour.

   Applicable Compliance Method: If required, compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Methods 1-4 and 15.

2. Emission Limitation: Organic compound emissions shall not exceed 18.24 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

3. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 50.8 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA

4. Emission Limitation: Combined facility emissions of organic compounds shall not exceed 222.5 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

5. Emission Limitation: Hydrogen sulfide emissions shall not exceed 0.38 pound per hour

Applicable Compliance Method: Compliance shall be demonstrated by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

6. Emission Limitation: Hydrogen sulfide emissions shall not exceed 1.66 ton per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

7. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 2.27 pounds per hour.

   Applicable Compliance Method: Compliance shall be determined by using 40 CFR, Part 60, Appendix A, Method 1-4 and Method 15, if required by the Ohio EPA.

8. Emission Limitation: Combined facility emissions of hydrogen sulfide shall not exceed 9.95 tons per year.

   Applicable Compliance Method: Compliance with the tons per year limitation shall be demonstrated by showing compliance with the pounds per hour limitation. The tons per year limitation was established by multiplying the allowable pounds per hour by 8760 (hours per year).

9. Emission Limitation: The air pollution control system shall remove a minimum of 80% of organic compounds vented to it, averaged over the preceding 60 consecutive days.

   Applicable Compliance Method: The control efficiency shall be determined by the following equation:

   EF = (1- (BO/BI)); Where,

   EF = removal efficiency of biofiltration units
   BO = outlet concentration from biofiltration units, per monitoring and record keeping requirement III.7
   BI = inlet concentration to biofiltration units, per monitoring and record keeping requirement III.7

10. Emission Limitation: The inlet to the biofiltration system shall capture 85% of all facility emissions of organic compounds.

    Applicable Compliance Method: The capture efficiency shall be determined by the following equation:

    TCE = BI/(BI + V) Where

    TCE = total biofiltration capture efficiency
    BI = concentration at inlet to biofiltration unit

V = concentration at inlet to plant ventilation stack

11. Emission Limitation: While this emissions unit is in operation, a negative pressure shall be maintained within the facility.

    Applicable Compliance Method: Compliance shall be demonstrated by hanging lightweight strips of material from egress points abutting the manufacturing area and ensuring the air current is moving towards the manufacturing area.

12. Emission Limitation: The sum of all uncontrolled sulfide emissions (reported as carbon disulfide) shall be reduced by at least 75% based on a 6-month rolling average.

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

    ESF = ECS + (EH x (MCS/MH)) + (ECOS x (MCS/MCOS)) where

    ESF = total emission rate of sulfide in stream, lb/hr, as carbon disulfide
    ECS = emission rate of carbon disulfide in stream, lb/hr
    EH = emission rate of hydrogen sulfide in stream, lb/hr
    MCS = mass of carbon disulfide per mole of carbon disulfide, 76 lb/lb-mole
    MH = mass of hydrogen sulfide per mole of carbon disulfide, 68 lb/lb-mole
    ECOS = emission rate of carbonyl sulfide in stream, lb/hr
    MCOS = mass of carbonyl sulfide per mole of carbon disulfide, 120 lb/lb-mole

13. During the performance test, the permittee shall establish site-specific operating limits for the biofiltration system and the caustic scrubber.

14. The performance test must be completed no later than 180 calendar days after the initial compliance date.

15. No performance test is required if a control device for which a performance test was conducted for determining compliance with a rule promulgated by EPA and the test was conducted using the same test methods specified in Table 4 to this subpart and either the permittee have made no deliberate process changes since the test, or the permittee can demonstrate that the results of the performance test with or without adjustments, reliably demonstrate compliance despite the process changes.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P010 - Sponge cloth machine No. 2	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup material) 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 (mg/m3): 31.14

Emissions Unit ID: P010

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 4.16 Facility - 50.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 69.86

MAGLC (ug/m3): 741.43

Pollutant: Hydrogen Sulfide

TLV (mg/m3): 13.91

Maximum Hourly Emission Rate (lbs/hr): Emission unit - 0.12 Facility - 2.27

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): Facility - 3.13

MAGLC (ug/m3): 331.19

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 still 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None