



State of Ohio Environmental Protection Agency

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03/27/02

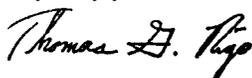
**RE: Proposed Title V Chapter 3745-77 Permit
02-43-00-0241
RICERCA,INC.**

Attn: Genevieve Damico AR-18J
United States Environmental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for RICERCA,INC., has been created in Ohio EPA's State Air Resources System (STARS) on 03/27/02, for review by USEPA. This proposed action is identified in STARS as  3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and  Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact Mike Ahern, DAPC Permit Management Unit supervisor at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,



Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: Northeast District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 03/27/02

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 02-43-00-0241 to: RICERCA,INC. 7528 AUBURN ROAD P.O.BOX 1000 CONCORD TOWNSHIP, OH 44077-1000

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

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like N001 (INCINERATOR), P007 (PRESSURE FILTER), P008 (PERFORATED BASKET FILTER), etc.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below.

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

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

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. *State and Federally Enforceable Section*

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

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))
- c. 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 record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))
 - ii. 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 record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. 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. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

2. **Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset condition, of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (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 submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upset conditions.

Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

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

3. **Risk Management Plans**

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

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

4. **Title IV Provisions**

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

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

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

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

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

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

8. Marketable Permit Programs

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

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

9. Reasonably Anticipated Operating Scenarios

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

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

10. Reopening for Cause

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

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

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

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

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

12. Compliance Requirements

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

- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

13. Permit Shield

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

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

14. Operational Flexibility

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

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

15. Emergencies

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

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

16. Off-Permit Changes

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions

or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

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

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

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)

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

17. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

18. Insignificant Activities

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

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

19. Permit to Install Requirement

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

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

20. Air Pollution Nuisance

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

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

B. State Only Enforceable Section

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (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.)

2. Records Retention Requirements

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

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution

control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

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

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

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

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

B001-HQ steam boiler (HQSB00001)
B002-HQ steam boiler (HQSB00002)
B013-HQ steam boiler (HPSB00001)
B014-HQ steam boiler (PDSB00002)
B015-PD steam boiler (PDSB00003)
P001-155 laboratory hoods in HQ, PD, and LS buildings
T001-10,000-gallon number 2 oil tank (oil tank #1)
T002-15,000-gallon number 2 oil tank (oil tank #2)
Z013-10-gallon GLS reactor system (R-7500)
Z014-10-gallon SS reactor system (R-7600)
Z015-10-gallon SS reactor system (R-7700)
Z018-single cavity bag filter (S-9800)
Z026-Sparkler plate filter (S-1600)
Z031-Sparkler plate filter (S-8000)
Z035-single cavity bag filter (S-9500)
Z036-jacketed single cavity bag filter (S-9900)
Z038-reactive extrusion unit (R-5100)
Z039-HQ steam boiler (HQSB00003)
Z040-PD water boiler (PDWB00001)
Z041-PD water boiler (PDWB00002)
Z042-LS steam boiler (LSSB00001)
Z043-LS steam boiler (LSSB00002)
Z044-LS steam boiler (LSSB00003)
Z046-LS water boiler (LSWB00002)
Z052-PD water heater (PDWB00003)
Z053-PD water heater (PDWB00004)
Z058-PD steam boiler (PDSB00004)
Z059-PD steam boiler (PDSB00005)
Z076-PD steam boiler (PDSB00004)
Z077-PD steam boiler (PDSB00005)
Z079-single cavity bag filter (S-14400)

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: INCINERATOR (N001)
Activity Description: MUTI-CHAMBER WITH AFTER BURNER

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Consumat C125P, multi-chamber incinerator equipped with an afterburner and rated at 350 pounds per hour for types 0 and 4 wastes	OAC rule 3745-31-05(A)(3) PTI 02-293	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-07 and 3745-17-09.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack associated with this emissions unit shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	Particulate emissions shall not exceed 0.10 pound per 100 pounds of refuse material charged.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- Only properly trained personnel shall operate the incinerator.
- The permittee shall ignite the afterburner 30 minutes prior to ignition of refuse material and continue its use during the entire burn cycle.
- The permittee shall operate and maintain the incinerator and all associated equipment so as to prevent the emission of objectionable odors.
- The permittee shall not charge this emissions unit with "infectious waste" as defined in OAC rule 3745-75-01(C)(4).
- The secondary combustion chamber exhaust gas temperature shall be maintained at a minimum of 1400 degrees Fahrenheit.
- The waste material feed rate to this incinerator shall be limited to 350 pounds per hour.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder for the secondary combustion chamber exhaust gas temperatures when the emissions unit is in use. The temperature monitor and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and applicable operating manual(s).
2. The permittee shall keep a log of the material charged, in pounds per hour, for each day that the unit is in operation.
3. The permittee shall maintain copies of the records for the secondary combustion chamber exhaust gas temperature and of the daily log of charge rates at the facility for a period of at least five years. Those records shall be made available for Ohio EPA or their representatives to review during normal working hours.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports for all hours of operation during which the charge rate exceeded 350 pounds per hour, including the actual charge rates for all such hours of operation.
2. The permittee shall submit deviation (excursion) reports which provide the following information for each period during which the secondary combustion chamber exhaust gas temperature falls below 1400 degrees Fahrenheit:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.
3. The permittee shall submit deviation (excursion) reports on a semi-annual basis, i.e., by January 31 and July 31 of each year for the previous six calendar months.

V. Testing Requirements

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

1.a Emission Limitation:

Visible particulate emissions from the stack associated with this emissions unit shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

Particulate emissions shall not exceed 0.10 pound per 100 pounds of refuse material charged.

Applicable Compliance Method:

If required, compliance shall be determined through stack testing performed using the requirements established in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Consumat C125P, multi-chamber incinerator equipped with an afterburner and rated at 350 pounds per hour for types 0 and 4 wastes	None.	None.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-12200 (P007)
Activity Description: PRESSURE FILTER, SS, 36"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 36 inches, S-12200	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emissions (in tons) for this emissions unit shall be calculated by summing the values from A.III.7.e and A.III.7.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 36 inches, S-12200	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P007) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.8
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 60 (EF45) and 54 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 49.3
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3609 (EF45) and 3258 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 3.3
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 238 (EF45) and 215 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 7.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 530 (EF45) and 479 (EF76)
MAGLC (ug/m3): 103000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 19 (EF45) and 17 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 7.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 523 (EF45) and 473 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 2.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 175 (EF45) and 158 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 4.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 291 (EF45) and 262 (EF76)
MAGLC (ug/m3): 164000

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 5.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 393 (EF45) and 355 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 2.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 174 (EF45) and 157 (EF76)
MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 3.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 258 (EF45) and 233 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 13 (EF45) and 11 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 32.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2372 (EF45) and 2141 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 19.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1405 (EF45) and 1269 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 1.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 105 (EF45) and 95 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 10.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 743 (EF45) and 670 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 2.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 168 (EF45) and 151 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-1900 (P008)
Activity Description: PERFORATED BASKET FILTER, SS, 32"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Perforated basket centrifuge, SS, 32 inches, S-1900	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Perforated basket centrifuge, SS, 32 inches, S-1900	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P008) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 1.3
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 94 (EF45) and 85 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 18.4
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1347 (EF45) and 1216 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 5.1
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 376 (EF45) and 339 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 11.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 836 (EF45) and 755 (EF76)
MAGLC (ug/m3): 103000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 30 (EF45) and 27 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 11.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 826 (EF45) and 745 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 3.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 275 (EF45) and 249 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 6.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 458 (EF45) and 414 (EF76)
MAGLC (ug/m3): 164000

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 8.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 620 (EF45) and 560 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 3.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 275 (EF45) and 248 (EF76)
MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 5.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 407 (EF45) and 367 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 20 (EF45) and 18 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 29.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2138 (EF45) and 1930 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 30.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2217 (EF45) and 2001 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 2.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 165 (EF45) and 149 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 16.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1171 (EF45) and 1057 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 3.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 264 (EF45) and 239 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-9300 (P009)
Activity Description: PRESSURE FILTER, SS, 36"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 36 inches, S-9300	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 36 inches, S-9300	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P009) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.5
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 39 (EF45) and 35 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 32.9
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2409 (EF45) and 2174 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 2.1
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 156 (EF45) and 141 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 4.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 347 (EF45) and 313 (EF76)
MAGLC (ug/m3): 103000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12 (EF45) and 11 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 4.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 343 (EF45) and 309 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 1.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 114 (EF45) and 103 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 2.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 190 (EF45) and 172 (EF76)
MAGLC (ug/m3): 164000

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 3.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 257 (EF45) and 232 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 1.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 114 (EF45) and 103 (EF76)
MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 2.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 169 (EF45) and 152 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8 (EF45) and 7 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 21.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1552 (EF45) and 1401 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 12.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 920 (EF45) and 830 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 69 (EF45) and 62 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 6.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 486 (EF45) and 439 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 1.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 110 (EF45) and 99 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-8400 (P010)
Activity Description: PRESSURE FILTER, SS, 30"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 30 inches, S-8400	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 30 inches, S-8400	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P010) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.3
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 23 (EF45) and 21 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 19.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1442 (EF45) and 1302 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 1.3
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 93 (EF45) and 84 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: S-8400 (P010)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 2.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 208 (EF45) and 188 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7 (EF45) and 7 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 2.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 205 (EF45) and 185 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 68 (EF45) and 62 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 1.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 114 (EF45) and 103 (EF76)

MAGLC (ug/m3): 164000

Pollutant: isopropyl acetate

TLV (ug/m3): 1044000

Maximum Hourly Emission Rate (lbs/hr): 2.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 154 (EF45) and 139 (EF76)

MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol

TLV (ug/m3): 983000

Maximum Hourly Emission Rate (lbs/hr): 0.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 68 (EF45) and 62 (EF76)

MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 1.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 101 (EF45) and 91 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5 (EF45) and 4 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 12.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 930 (EF45) and 839 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 7.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 551 (EF45) and 497 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 41 (EF45) and 37 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 4.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 291 (EF45) and 263 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 66 (EF45) and 59 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D-1500 (P011)
Activity Description: VACUUM SHELF DRYER SYSTEM (48 SQFT)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Vacuum shelf dryer, 48 square feet, D-1500	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Vacuum shelf dryer, 48 square feet, D-1500	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P011) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 126 (EF45) and 114 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 0.5
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 34 (EF45) and 30 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: D-1500 (P011)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 73 (EF45) and 66 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2 (EF45) and 2 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 0.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 68 (EF45) and 61 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 19 (EF45) and 17 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 37 (EF45) and 33 (EF76)

MAGLC (ug/m3): 164000

Pollutant: isopropyl alcohol

TLV (ug/m3): 983000

Maximum Hourly Emission Rate (lbs/hr): 0.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 17 (EF45) and 16 (EF76)

MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 31 (EF45) and 28 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1 (EF45) and 1 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 5.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 373 (EF45) and 337 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 2.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 215 (EF45) and 194 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12 (EF45) and 11 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 1.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 107 (EF45) and 97 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 21 (EF45) and 19 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D-2000 (P012)
Activity Description: 10 CUFT SLANT CONE DRYER SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Slant cone rotary dryer, 10 cubic feet, D-2000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Slant cone rotary dryer, 10 cubic feet, D-2000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P012) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 2.3
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 169 (EF45) and 152 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 0.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 45 (EF45) and 40 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: D-2000 (P012)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 1.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 97 (EF45) and 88 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2 (EF45) and 2 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 1.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 91 (EF45) and 82 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 25 (EF45) and 22 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 0.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 49 (EF45) and 44 (EF76)

MAGLC (ug/m3): 164000

Pollutant: isopropyl alcohol

TLV (ug/m3): 983000

Maximum Hourly Emission Rate (lbs/hr): 0.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23 (EF45) and 21 (EF76)

MAGLC (ug/m3): 98300

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: D-2000 (P012)

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

Pollutant: methyl alcohol

TLV (ug/m3): 262000

Maximum Hourly Emission Rate (lbs/hr): 0.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 42 (EF45) and 38 (EF76)

MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol

TLV (ug/m3): 104000

Maximum Hourly Emission Rate (lbs/hr): 0.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1 (EF45) and 1 (EF76)

MAGLC (ug/m3): 10400

Pollutant: methylene chloride

TLV (ug/m3): 174000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 497 (EF45) and 449 (EF76)

MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether

TLV (ug/m3): 144000

Maximum Hourly Emission Rate (lbs/hr): 3.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 286 (EF45) and 258 (EF76)

MAGLC (ug/m3): 14400

Pollutant: pyridine

TLV (ug/m3): 16000

Maximum Hourly Emission Rate (lbs/hr): 0.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 16 (EF45) and 14 (EF76)

MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran

TLV (ug/m3): 590000

Maximum Hourly Emission Rate (lbs/hr): 2.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 143 (EF45) and 129 (EF76)

MAGLC (ug/m3): 59000

Pollutant: toluene

TLV (ug/m3): 188000

Maximum Hourly Emission Rate (lbs/hr): 0.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 27 (EF45) and 25 (EF76)

MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.
2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D-12000 (P013)
Activity Description: 20 CUFT ROTARY DRYER SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Double cone rotary dryer, 20 cubic feet, D-12000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Double cone rotary dryer, 20 cubic feet, D-12000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P013) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 4.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 337 (EF45) and 304 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 1.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 90 (EF45) and 81 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 2.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 194 (EF45) and 175 (EF76)
MAGLC (ug/m3): 103000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5 (EF45) and 4 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 2.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 181 (EF45) and 164 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 0.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50 (EF45) and 45 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 1.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 98 (EF45) and 89 (EF76)
MAGLC (ug/m3): 164000

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 47 (EF45) and 42 (EF76)
MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 1.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 83 (EF45) and 75 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3 (EF45) and 2 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 13.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 995 (EF45) and 898 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 7.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 573 (EF45) and 517 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 32 (EF45) and 29 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 3.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 287 (EF45) and 259 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 55 (EF45) and 50 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.
2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D-13000 (P014)

Activity Description: VACUUM SHELF DRYER SYSTEM (183.3 SQFT), PLANNED INSTALLATION

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Vacuum shelf dryer system, 183.3 square feet, D-13000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).
	OAC rule 3745-31-28	None. See A.I.2.d below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.
- 2.d This emissions unit is exempt from the requirements of OAC rule 3745-31-28 pursuant to the exemption in OAC rule 3745-31-28(C)(5) for any major MACT source that is a research and development activity.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Vacuum shelf dryer system, 183.3 square feet, D-13000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P014) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 7.0
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 513 (EF45) and 463 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 1.9
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 136 (EF45) and 123 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 4.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 295 (EF45) and 267 (EF76)
MAGLC (ug/m3): 103000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7 (EF45) and 7 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 3.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 276 (EF45) and 249 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 1.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 76 (EF45) and 68 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 2.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 149 (EF45) and 135 (EF76)
MAGLC (ug/m3): 164000

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 1.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 71 (EF45) and 64 (EF76)
MAGLC (ug/m3): 98300

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

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 1.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 127 (EF45) and 115 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 4 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 20.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1513 (EF45) and 1365 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 11.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 871 (EF45) and 786 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 49 (EF45) and 44 (EF76)
MAGLC (ug/m3): 1600

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 6.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 436 (EF45) and 393 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 1.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 83 (EF45) and 75 (EF76)
MAGLC (ug/m3): 18800

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

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.
2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-100 (P015)
Activity Description: 100 GAL. GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon GLS reaction system, R-100	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon GLS reaction system, R-100	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-200 (P016)
Activity Description: 100 GAL SS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon SS reaction system, R-200	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. the total number of hours the emissions unit was in operation to produce all the final products; and
 - c. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;

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

- g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
- a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a); and
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.c).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon SS reaction system, R-200	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-300 (P017)
Activity Description: 20 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
20-gallon GLS reaction system, R-300	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. the total number of hours the emissions unit was in operation to produce all the final products; and
 - c. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;

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

- g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
- a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a); and
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.c).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

3. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: R-300 (P017)

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
20-gallon GLS reaction system, R-300	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-400 (P018)
Activity Description: 50 GAL NICKEL REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
50-gallon Ni-clad reaction system, R-400	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
50-gallon Ni-clad reaction system, R-400	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-500 (P019)
Activity Description: 50 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
50-gallon GLS reaction system, R-500	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
50-gallon GLS reaction system, R-500	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-600 (P020)
Activity Description: 100 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
200-gallon GLS reaction system, R-600	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
200-gallon GLS reaction system, R-600	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-700 (P021)
Activity Description: 100 GAL NICKLE REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon nickle reaction system, R-700	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. the total number of hours the emissions unit was in operation to produce all the final products; and
 - c. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;

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

- g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
- a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a); and
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.c).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

3. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

Facility Name: RICERCA, LLC
Facility ID: 02-43-00-0241
Emissions Unit: R-700 (P021)

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon nickle reaction system, R-700	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-800 (P022)
Activity Description: 500 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-800	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. the total number of hours the emissions unit was in operation to produce all the final products; and
 - c. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;

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

- g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
- a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a); and
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.c).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

3. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-800	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-900 (P023)
Activity Description: 100 GAL SS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon SS reaction system, R-900	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. the total number of hours the emissions unit was in operation to produce all the final products; and
 - c. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;

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

- g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
- a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a); and
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.c).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

3. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon SS reaction system, R-900	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-1000 (P024)
Activity Description: 500 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-1000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-1000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

- When using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine in this emissions unit, a scrubber shall be employed. The pH of the scrubber liquor shall be maintained at a pH of 10 or greater when using chlorine, hydrogen chloride and/or hydrogen bromide. The pH of the scrubber liquor shall be maintained at a pH of 3 or less when using t-butylamine.

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P024) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 124 (EF45) and 112 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 24.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1769 (EF45) and 1597 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 6.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 494 (EF45) and 446 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: t-butylamine
TLV (ug/m3): 11000
Maximum Hourly Emission Rate (lbs/hr): 0.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 1100

Pollutant: chlorine
TLV (ug/m3): 1450
Maximum Hourly Emission Rate (lbs/hr): 0.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10 (EF45) and 9 (EF76)
MAGLC (ug/m3): 145

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 15.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1098 (EF45) and 991 (EF76)
MAGLC (ug/m3): 103000

Pollutant: diethyl ether
TLV (ug/m3): 1210000
Maximum Hourly Emission Rate (lbs/hr): 71.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5267 (EF45) and 4754 (EF76)
MAGLC (ug/m3): 121000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 39 (EF45) and 35 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 14.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1085 (EF45) and 979 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 362 (EF45) and 327 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 8.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 602 (EF45) and 544 (EF76)
MAGLC (ug/m3): 164000

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

Pollutant: hydrogen bromide
TLV (ug/m3): 7300
Maximum Hourly Emission Rate (lbs/hr): 1.28
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 94 (EF45) and 85 (EF76)
MAGLC (ug/m3): 730

Pollutant: hydrogen chloride
TLV (ug/m3): 5500
Maximum Hourly Emission Rate (lbs/hr): 0.15
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11 (EF45) and 10 (EF76)
MAGLC (ug/m3): 550

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 11.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 815 (EF45) and 736 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 361 (EF45) and 326 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 7.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 535 (EF45) and 483 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 26 (EF45) and 23 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 35.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2598 (EF45) and 2345 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 20.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1506 (EF45) and 1359 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 3.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 217 (EF45) and 196 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 21.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1538 (EF45) and 1389 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 4.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 347 (EF45) and 313 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

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

3. The permittee shall monitor the pH of the scrubber liquor while the emissions unit is being operated using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine. The permittee shall collect and record the following information:
 - a. The pH of the scrubber liquor before and after each reaction. The pH of the scrubber liquor before and after some reactions, i.e., those reactions where the operators know before the reaction takes place (based upon operating experience) that the pH will be within the limits specified in term B.II.1, may be based on the stoichiometry of the reactions.
 - b. A log or record of operating time for the emissions unit and the scrubber.

IV. Reporting Requirements

1. The permittee shall submit quarterly 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.
2. The permittee shall submit quarterly reports that identify all periods of time during which chlorine, hydrogen chloride, hydrogen bromide, and/or t-butylamine were used in this emissions unit and a scrubber was not employed.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-1300 (P025)
Activity Description: 100 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon GLS reaction system, R-1300	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100-gallon GLS reaction system, R-1300	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

- When using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine in this emissions unit, a scrubber shall be employed. The pH of the scrubber liquor shall be maintained at a pH of 10 or greater when using chlorine, hydrogen chloride and/or hydrogen bromide. The pH of the scrubber liquor shall be maintained at a pH of 3 or less when using t-butylamine.

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P025) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.5
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 33 (EF45) and 30 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 6.5
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 475 (EF45) and 429 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 1.8
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 133 (EF45) and 120 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: t-butylamine
TLV (ug/m3): 11000
Maximum Hourly Emission Rate (lbs/hr): 0.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 1100

Pollutant: chlorine
TLV (ug/m3): 1450
Maximum Hourly Emission Rate (lbs/hr): 0.026
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2 (EF45) and 2 (EF76)
MAGLC (ug/m3): 145

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 4.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 295 (EF45) and 266 (EF76)
MAGLC (ug/m3): 103000

Pollutant: diethyl ether
TLV (ug/m3): 1210000
Maximum Hourly Emission Rate (lbs/hr): 19.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1413 (EF45) and 1276 (EF76)
MAGLC (ug/m3): 121000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11 (EF45) and 10 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 4.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 291 (EF45) and 263 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 1.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 97 (EF45) and 88 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 2.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 162 (EF45) and 146 (EF76)
MAGLC (ug/m3): 164000

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

Pollutant: hydrogen bromide
TLV (ug/m3): 7300
Maximum Hourly Emission Rate (lbs/hr): 0.26
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 19 (EF45) and 17 (EF76)
MAGLC (ug/m3): 730

Pollutant: hydrogen chloride
TLV (ug/m3): 5500
Maximum Hourly Emission Rate (lbs/hr): 0.03
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2 (EF45) and 2 (EF76)
MAGLC (ug/m3): 550

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 3.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 219 (EF45) and 197 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 1.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 97 (EF45) and 87 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 2.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 143 (EF45) and 130 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7 (EF45) and 6 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 9.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 697 (EF45) and 629 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 5.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 404 (EF45) and 365 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 58 (EF45) and 53 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 5.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 413 (EF45) and 373 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 1.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 93 (EF45) and 84 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

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

3. The permittee shall monitor the pH of the scrubber liquor while the emissions unit is being operated using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine. The permittee shall collect and record the following information:
 - a. The pH of the scrubber liquor before and after each reaction. The pH of the scrubber liquor before and after some reactions, i.e., those reactions where the operators know before the reaction takes place (based upon operating experience) that the pH will be within the limits specified in term B.II.1, may be based on the stoichiometry of the reactions.
 - b. A log or record of operating time for the emissions unit and the scrubber.

IV. Reporting Requirements

1. The permittee shall submit quarterly 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.
2. The permittee shall submit quarterly reports that identify all periods of time during which chlorine, hydrogen chloride, hydrogen bromide, and/or t-butylamine were used in this emissions unit and a scrubber was not employed.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-1400 (P026)
Activity Description: 500 GAL SS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon SS reaction system, R-1400	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon SS reaction system, R-1400	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P026) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 124 (EF45) and 112 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 24.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1769 (EF45) and 1597 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 6.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 494 (EF45) and 446 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: t-butylamine
TLV (ug/m3): 11000
Maximum Hourly Emission Rate (lbs/hr): 0.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 1100

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 15.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1098 (EF45) and 991 (EF76)
MAGLC (ug/m3): 103000

Pollutant: diethyl ether
TLV (ug/m3): 1210000
Maximum Hourly Emission Rate (lbs/hr): 71.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5267 (EF45) and 4754 (EF76)
MAGLC (ug/m3): 121000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 39 (EF45) and 35 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 14.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1085 (EF45) and 979 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 362 (EF45) and 327 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 8.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 602 (EF45) and 544 (EF76)
MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate

TLV (ug/m3): 1044000

Maximum Hourly Emission Rate (lbs/hr): 11.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 815 (EF45) and 736 (EF76)

MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol

TLV (ug/m3): 983000

Maximum Hourly Emission Rate (lbs/hr): 4.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 361 (EF45) and 326 (EF76)

MAGLC (ug/m3): 98300

Pollutant: methyl alcohol

TLV (ug/m3): 262000

Maximum Hourly Emission Rate (lbs/hr): 7.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 535 (EF45) and 483 (EF76)

MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol

TLV (ug/m3): 104000

Maximum Hourly Emission Rate (lbs/hr): 0.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 26 (EF45) and 23 (EF76)

MAGLC (ug/m3): 10400

Pollutant: methylene chloride

TLV (ug/m3): 174000

Maximum Hourly Emission Rate (lbs/hr): 35.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2598 (EF45) and 2345 (EF76)

MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether

TLV (ug/m3): 144000

Maximum Hourly Emission Rate (lbs/hr): 20.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1506 (EF45) and 1359 (EF76)

MAGLC (ug/m3): 14400

Pollutant: pyridine

TLV (ug/m3): 16000

Maximum Hourly Emission Rate (lbs/hr): 3.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 217 (EF45) and 196 (EF76)

MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 21.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1538 (EF45) and 1389 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 4.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 347 (EF45) and 313 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: R-1400 (P026)

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-8300 (P027)
Activity Description: 750 GAL SS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
750-gallon SS reaction system, R-8300	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
750-gallon SS reaction system, R-8300	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P027) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 2.0
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 157 (EF45) and 142 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 30.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2244 (EF45) and 2026 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 8.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 626 (EF45) and 566 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: t-butylamine
TLV (ug/m3): 11000
Maximum Hourly Emission Rate (lbs/hr): 0.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 1100

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 19.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1393 (EF45) and 1257 (EF76)
MAGLC (ug/m3): 103000

Pollutant: diethyl ether
TLV (ug/m3): 1210000
Maximum Hourly Emission Rate (lbs/hr): 91.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6680 (EF45) and 6030 (EF76)
MAGLC (ug/m3): 121000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50 (EF45) and 45 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 18.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1376 (EF45) and 1242 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 6.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 459 (EF45) and 414 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 10.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 764 (EF45) and 689 (EF76)
MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 14.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1033 (EF45) and 933 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 6.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 457 (EF45) and 413 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 9.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 678 (EF45) and 612 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 33 (EF45) and 30 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 45.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3295 (EF45) and 2974 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 26.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1910 (EF45) and 1724 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 3.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 275 (EF45) and 249 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 26.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1951 (EF45) and 1762 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 6.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 440 (EF45) and 397 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-10000 (P028)
Activity Description: 500 GAL GLS REACTOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-10000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-10000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

- When using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine in this emissions unit, a scrubber shall be employed. The pH of the scrubber liquor shall be maintained at a pH of 10 or greater when using chlorine, hydrogen chloride and/or hydrogen bromide. The pH of the scrubber liquor shall be maintained at a pH of 3 or less when using t-butylamine.

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P028) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 124 (EF45) and 112 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 24.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1769 (EF45) and 1597 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 6.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 494 (EF45) and 446 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: t-butylamine
TLV (ug/m3): 11000
Maximum Hourly Emission Rate (lbs/hr): 0.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 1100

Pollutant: chlorine
TLV (ug/m3): 1450
Maximum Hourly Emission Rate (lbs/hr): 0.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10 (EF45) and 9 (EF76)
MAGLC (ug/m3): 145

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 15.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1098 (EF45) and 991 (EF76)
MAGLC (ug/m3): 103000

Pollutant: diethyl ether
TLV (ug/m3): 1210000
Maximum Hourly Emission Rate (lbs/hr): 71.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5267 (EF45) and 4754 (EF76)
MAGLC (ug/m3): 121000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 39 (EF45) and 35 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 14.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1085 (EF45) and 979 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 362 (EF45) and 327 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 8.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 602 (EF45) and 544 (EF76)
MAGLC (ug/m3): 164000

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

Pollutant: hydrogen bromide
TLV (ug/m3): 7300
Maximum Hourly Emission Rate (lbs/hr): 1.28
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 94 (EF45) and 85 (EF76)
MAGLC (ug/m3): 730

Pollutant: hydrogen chloride
TLV (ug/m3): 5500
Maximum Hourly Emission Rate (lbs/hr): 0.15
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11 (EF45) and 10 (EF76)
MAGLC (ug/m3): 550

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 11.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 815 (EF45) and 736 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 361 (EF45) and 326 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 7.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 535 (EF45) and 483 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 26 (EF45) and 23 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 35.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2598 (EF45) and 2345 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 20.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1506 (EF45) and 1359 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 3.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 217 (EF45) and 196 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 21.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1538 (EF45) and 1389 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 4.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 347 (EF45) and 313 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

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

3. The permittee shall monitor the pH of the scrubber liquor while the emissions unit is being operated using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine. The permittee shall collect and record the following information:
 - a. The pH of the scrubber liquor before and after each reaction. The pH of the scrubber liquor before and after some reactions, i.e., those reactions where the operators know before the reaction takes place (based upon operating experience) that the pH will be within the limits specified in term B.II.1, may be based on the stoichiometry of the reactions.
 - b. A log or record of operating time for the emissions unit and the scrubber.

IV. Reporting Requirements

1. The permittee shall submit quarterly 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.
2. The permittee shall submit quarterly reports that identify all periods of time during which chlorine, hydrogen chloride, hydrogen bromide, and/or t-butylamine were used in this emissions unit and a scrubber was not employed.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-17000 (P029)

Activity Description: 500 GAL GLS REACTOR SYSTEM, PLANNED INSTALLATION

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-17000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).
	OAC rule 3745-31-28	None. See A.I.2.d below.

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.
- 2.d This emissions unit is exempt from the requirements of OAC rule 3745-31-28 pursuant to the exemption in OAC rule 3745-31-28(C)(5) for any major MACT source that is a research and development activity.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep the following daily records for all materials used in this emissions unit:
 - a. the identification of the chemical compound and its physical state; and
 - b. for any liquid organic materials, whether or not each material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon GLS reaction system, R-17000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

- When using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine in this emissions unit, a scrubber shall be employed. The pH of the scrubber liquor shall be maintained at a pH of 10 or greater when using chlorine, hydrogen chloride and/or hydrogen bromide. The pH of the scrubber liquor shall be maintained at a pH of 3 or less when using t-butylamine.

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P029) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 124 (EF45) and 112 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 24.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1769 (EF45) and 1597 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 6.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 494 (EF45) and 446 (EF76)
 MAGLC (ug/m3): 6700

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

Pollutant: t-butylamine
TLV (ug/m3): 11000
Maximum Hourly Emission Rate (lbs/hr): 0.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 1100

Pollutant: chlorine
TLV (ug/m3): 1450
Maximum Hourly Emission Rate (lbs/hr): 0.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10 (EF45) and 9 (EF76)
MAGLC (ug/m3): 145

Pollutant: cyclohexane
TLV (ug/m3): 1030000
Maximum Hourly Emission Rate (lbs/hr): 15.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1098 (EF45) and 991 (EF76)
MAGLC (ug/m3): 103000

Pollutant: diethyl ether
TLV (ug/m3): 1210000
Maximum Hourly Emission Rate (lbs/hr): 71.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5267 (EF45) and 4754 (EF76)
MAGLC (ug/m3): 121000

Pollutant: dimethylformamide
TLV (ug/m3): 30000
Maximum Hourly Emission Rate (lbs/hr): 0.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 39 (EF45) and 35 (EF76)
MAGLC (ug/m3): 3000

Pollutant: ethyl acetate
TLV (ug/m3): 1440000
Maximum Hourly Emission Rate (lbs/hr): 14.8
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1085 (EF45) and 979 (EF76)
MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol
TLV (ug/m3): 1880000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 362 (EF45) and 327 (EF76)
MAGLC (ug/m3): 188000

Pollutant: heptane
TLV (ug/m3): 1640000
Maximum Hourly Emission Rate (lbs/hr): 8.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 602 (EF45) and 544 (EF76)
MAGLC (ug/m3): 164000

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

Pollutant: hydrogen bromide
TLV (ug/m3): 7300
Maximum Hourly Emission Rate (lbs/hr): 1.28
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 94 (EF45) and 85 (EF76)
MAGLC (ug/m3): 730

Pollutant: hydrogen chloride
TLV (ug/m3): 5500
Maximum Hourly Emission Rate (lbs/hr): 0.15
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11 (EF45) and 10 (EF76)
MAGLC (ug/m3): 550

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 11.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 815 (EF45) and 736 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 361 (EF45) and 326 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 7.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 535 (EF45) and 483 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 26 (EF45) and 23 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 35.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2598 (EF45) and 2345 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 20.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1506 (EF45) and 1359 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 3.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 217 (EF45) and 196 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 21.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1538 (EF45) and 1389 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 4.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 347 (EF45) and 313 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

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

3. The permittee shall monitor the pH of the scrubber liquor while the emissions unit is being operated using chlorine, hydrogen chloride, hydrogen bromide and/or t-butylamine. The permittee shall collect and record the following information:
 - a. The pH of the scrubber liquor before and after each reaction. The pH of the scrubber liquor before and after some reactions, i.e., those reactions where the operators know before the reaction takes place (based upon operating experience) that the pH will be within the limits specified in term B.II.1, may be based on the stoichiometry of the reactions.
 - b. A log or record of operating time for the emissions unit and the scrubber.

IV. Reporting Requirements

1. The permittee shall submit quarterly 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.
2. The permittee shall submit quarterly reports that identify all periods of time during which chlorine, hydrogen chloride, hydrogen bromide, and/or t-butylamine were used in this emissions unit and a scrubber was not employed.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: E-1200 (P030)

Activity Description: 1.4 SQFT LUWA WIPED/THIN FILM EVAPORATOR SYSTEM

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
LUWA wiped/thin film evaporator system, 1.4 square feet, E-1200	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
LUWA wiped/thin film evaporator system, 1.4 square feet, E-1200	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P030) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 3.5
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 255 (EF45) and 230 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 1.0
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 71 (EF45) and 64 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: E-1200 (P030)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 2.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 158 (EF45) and 143 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6 (EF45) and 5 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 2.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 156 (EF45) and 141 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 52 (EF45) and 47 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 1.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 87 (EF45) and 78 (EF76)

MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 1.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 117 (EF45) and 106 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 0.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 52 (EF45) and 47 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 1.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 77 (EF45) and 70 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4 (EF45) and 3 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 9.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 708 (EF45) and 639 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 5.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 419 (EF45) and 379 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 31 (EF45) and 28 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 3.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 222 (EF45) and 200 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50 (EF45) and 45 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: R-2200 (P031)
Activity Description: PROCESS VESSEL,2000 GAL SS

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2000-gallon process tank, T-2200	OAC rule 3745-21-07(G)(2) OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.a below. See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2000-gallon process tank, T-2200	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P031) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 2.1
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 157 (EF45) and 142 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 30.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2244 (EF45) and 2026 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 8.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 626 (EF45) and 566 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: R-2200 (P031)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 19.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1393 (EF45) and 1257 (EF76)

MAGLC (ug/m3): 103000

Pollutant: diethyl ether

TLV (ug/m3): 1210000

Maximum Hourly Emission Rate (lbs/hr): 91.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6680 (EF45) and 6030 (EF76)

MAGLC (ug/m3): 121000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50 (EF45) and 45 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 18.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1376 (EF45) and 1242 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 6.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 459 (EF45) and 414 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 10.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 764 (EF45) and 689 (EF76)

MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate

TLV (ug/m3): 1044000

Maximum Hourly Emission Rate (lbs/hr): 14.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1033 (EF45) and 933 (EF76)

MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol

TLV (ug/m3): 983000

Maximum Hourly Emission Rate (lbs/hr): 6.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 457 (EF45) and 413 (EF76)

MAGLC (ug/m3): 98300

Pollutant: methyl alcohol

TLV (ug/m3): 262000

Maximum Hourly Emission Rate (lbs/hr): 9.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 678 (EF45) and 612 (EF76)

MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol

TLV (ug/m3): 104000

Maximum Hourly Emission Rate (lbs/hr): 0.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 33 (EF45) and 30 (EF76)

MAGLC (ug/m3): 10400

Pollutant: methylene chloride

TLV (ug/m3): 174000

Maximum Hourly Emission Rate (lbs/hr): 45.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3295 (EF45) and 2974 (EF76)

MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether

TLV (ug/m3): 144000

Maximum Hourly Emission Rate (lbs/hr): 26.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1910 (EF45) and 1724 (EF76)

MAGLC (ug/m3): 14400

Pollutant: pyridine

TLV (ug/m3): 16000

Maximum Hourly Emission Rate (lbs/hr): 3.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 275 (EF45) and 249 (EF76)

MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 26.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1951 (EF45) and 1762 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 6.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 440 (EF45) and 397 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-3900 (P032)
Activity Description: PERFORATED BASKET FILTER, SS, 24"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Perforated basket filter, SS, 24 inches, S-3900	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Perforated basket filter, SS, 24 inches, S-3900	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-7000 (P033)
Activity Description: PRESSURE FILTER, SS, 24"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 24 inches, S-7000	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 24 inches, S-7000	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P033) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 15 (EF45) and 14 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 12.8
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 937 (EF45) and 846 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 0.8
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 61 (EF45) and 55 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: S-7000 (P033)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 1.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 136 (EF45) and 123 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5 (EF45) and 4 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 1.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 134 (EF45) and 121 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 45 (EF45) and 40 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 74 (EF45) and 67 (EF76)

MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 1.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 101 (EF45) and 91 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 45 (EF45) and 40 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 0.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 66 (EF45) and 60 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3 (EF45) and 3 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 8.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 608 (EF45) and 549 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 360 (EF45) and 325 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 27 (EF45) and 24 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 2.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 190 (EF45) and 172 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 43 (EF45) and 39 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: S-7000 (P033)

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-7100 (P034)
Activity Description: ESTRELLA GLS NUTSCHE FILTER

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, GLS, 24 inches, S-7100	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, GLS, 24 inches, S-7100	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P034) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 16 (EF45) and 14 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 13.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 966 (EF45) and 872 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 0.9
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 63 (EF45) and 56 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: S-7100 (P034)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 1.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 139 (EF45) and 126 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5 (EF45) and 4 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 1.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 137 (EF45) and 124 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 46 (EF45) and 41 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 76 (EF45) and 69 (EF76)

MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 1.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 103 (EF45) and 93 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 46 (EF45) and 41 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 0.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 68 (EF45) and 61 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3 (EF45) and 3 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 8.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 622 (EF45) and 562 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 5.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 369 (EF45) and 333 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 27 (EF45) and 25 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 2.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 195 (EF45) and 176 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 44 (EF45) and 40 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: S-7100 (P034)

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-14600 (P035)
Activity Description: PRESSURE FILTER, SS, 24"

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 24 inches, S-14600	OAC rule 3745-21-07(G)(2)	See A.I.2.a below.
	OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of (c x d) for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of (c x d) for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of (e x f) for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of (e x f) for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds (j + l).
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Pressure filter, SS, 24 inches, S-14600	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (P035) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially 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: acetic acid
 TLV (ug/m3): 25000
 Maximum Hourly Emission Rate (lbs/hr): 0.2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3)*: 15 (EF45) and 14 (EF76)
 MAGLC (ug/m3): 2500

Pollutant: acetone
 TLV (ug/m3): 1188000
 Maximum Hourly Emission Rate (lbs/hr): 12.8
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 937 (EF45) and 846 (EF76)
 MAGLC (ug/m3): 118800

Pollutant: acetonitrile
 TLV (ug/m3): 67000
 Maximum Hourly Emission Rate (lbs/hr): 0.8
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 61 (EF45) and 55 (EF76)
 MAGLC (ug/m3): 6700

Facility Name: RICERCA, LLC

Facility ID: 02-43-00-0241

Emissions Unit: S-14600 (P035)

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

Pollutant: cyclohexane

TLV (ug/m3): 1030000

Maximum Hourly Emission Rate (lbs/hr): 1.9

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 136 (EF45) and 123 (EF76)

MAGLC (ug/m3): 103000

Pollutant: dimethylformamide

TLV (ug/m3): 30000

Maximum Hourly Emission Rate (lbs/hr): 0.1

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5 (EF45) and 4 (EF76)

MAGLC (ug/m3): 3000

Pollutant: ethyl acetate

TLV (ug/m3): 1440000

Maximum Hourly Emission Rate (lbs/hr): 1.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 134 (EF45) and 121 (EF76)

MAGLC (ug/m3): 144000

Pollutant: ethyl alcohol

TLV (ug/m3): 1880000

Maximum Hourly Emission Rate (lbs/hr): 0.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 45 (EF45) and 40 (EF76)

MAGLC (ug/m3): 188000

Pollutant: heptane

TLV (ug/m3): 1640000

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 74 (EF45) and 67 (EF76)

MAGLC (ug/m3): 164000

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

Pollutant: isopropyl acetate
TLV (ug/m3): 1044000
Maximum Hourly Emission Rate (lbs/hr): 1.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 101 (EF45) and 91 (EF76)
MAGLC (ug/m3): 104400

Pollutant: isopropyl alcohol
TLV (ug/m3): 983000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 45 (EF45) and 40 (EF76)
MAGLC (ug/m3): 98300

Pollutant: methyl alcohol
TLV (ug/m3): 262000
Maximum Hourly Emission Rate (lbs/hr): 0.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 66 (EF45) and 60 (EF76)
MAGLC (ug/m3): 26200

Pollutant: methylamyl alcohol
TLV (ug/m3): 104000
Maximum Hourly Emission Rate (lbs/hr): 0.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3 (EF45) and 3 (EF76)
MAGLC (ug/m3): 10400

Pollutant: methylene chloride
TLV (ug/m3): 174000
Maximum Hourly Emission Rate (lbs/hr): 8.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 608 (EF45) and 549 (EF76)
MAGLC (ug/m3): 17400

Pollutant: methyl tert butyl ether
TLV (ug/m3): 144000
Maximum Hourly Emission Rate (lbs/hr): 4.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 360 (EF45) and 325 (EF76)
MAGLC (ug/m3): 14400

Pollutant: pyridine
TLV (ug/m3): 16000
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 27 (EF45) and 24 (EF76)
MAGLC (ug/m3): 1600

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

Pollutant: tetrahydrofuran
TLV (ug/m3): 590000
Maximum Hourly Emission Rate (lbs/hr): 2.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 190 (EF45) and 172 (EF76)
MAGLC (ug/m3): 59000

Pollutant: toluene
TLV (ug/m3): 188000
Maximum Hourly Emission Rate (lbs/hr): 0.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 43 (EF45) and 39 (EF76)
MAGLC (ug/m3): 18800

* Emissions unit will discharge through either egress point EF45 or EF76, but not both simultaneously.

Physical changes to or changes in the method of operation of the emissions unit after its installation 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 be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically 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.

2. The permittee shall sum the predicted 1-hour maximum ground-level concentrations for each pollutant from emissions units P007 through P015, P018 through P020, and P024 through P036, to demonstrate compliance with the "Air Toxic Policy". This sum shall take into account the actual equipment's operating schedule and equipment utilization. Comparison of the sum to the MAGLC shall be made to demonstrate compliance with the "Air Toxic Policy".

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: S-9400 (P036)
Activity Description: FOUR CAVITY BAG FILTER

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Four cavity bag filter, S-9400	OAC rule 3745-21-07(G)(2) OAC rule 3745-31-05(A)(3) PTI 02-13904	See A.I.2.a below. See A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day nor more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01. Emissions of organic materials from cleanup with photochemically reactive materials shall be included in the calculation of actual emissions when determining compliance with the 8 pounds per hour and 40 pounds per day limits.
- 2.b On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are not employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.
- 2.c The emissions of organic compounds from emissions units P007 through P015, P018 through P020, and P024 through P036, combined, shall be limited to 75 (seventy five) tons per year.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

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

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

2. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each final product generated in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of final product generated. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.
3. The permittee shall collect and record the following information each day for each final product generated in this emissions unit:
 - a. the company identification for each final product generated;
 - b. whether or not any photochemically reactive materials were used to generate each final product;
 - c. the quantity of each final product generated, in pounds;
 - d. the emission factor for each final product generated, in pounds of organic compounds emitted per pound of final product generated; and
 - e. the total organic compound emission rate, in pounds (c x d).
4. The permittee shall collect and record the following information each day for all final products generated in this emissions unit:
 - a. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - b. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the total emissions from all final products produced that day, in pounds per day (the summation of A.III.3.e for all final products).
 - c. the total number of hours the emissions unit was in operation to produce all the final products;
 - d. for each day during which any photochemically reactive material was used as a cleanup material and/or for one or more of the final products, the average hourly emissions from all final products (a / c), in pounds per hour; and
 - e. for each day during which no photochemically reactive material was used as a cleanup material and for any of the final products, the average hourly emissions from all final products (b / c), in pounds per hour.
5. The permittee shall develop an emission factor for the total amount of organic compounds emitted for each cleanup material employed in this emissions unit. The emission factors shall be in units of pounds of organic compounds emitted per pound of cleanup material employed. The permittee shall indicate whether or not each emission factor is based upon the use of any photochemically reactive materials. The permittee's calculation of each emission factor shall be subject to the review and approval of the Ohio EPA Northeast District Office.

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

6. The permittee shall collect and record the following information for the cleanup materials employed each day in this emissions unit:
 - a. the company identification for each cleanup material;
 - b. whether or not each cleanup material is a photochemically reactive material;
 - c. the quantity of each cleanup material employed that is a photochemically reactive material, in pounds;
 - d. the emission factor for each cleanup material employed that is a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - e. the quantity of each cleanup material employed that is not a photochemically reactive material, in pounds;
 - f. the emission factor for each cleanup material employed that is not a photochemically reactive material, in pounds of organic compounds emitted per pound of cleanup material employed;
 - g. the number of hours cleanup materials that are photochemically reactive materials were employed;
 - h. the number of hours cleanup materials that are not photochemically reactive materials were employed;
 - i. the hourly emissions from the cleanup materials that are photochemically reactive materials, in pounds per hour [the summation of $(c \times d)$ for all such cleanup materials/g];
 - j. the total emissions from the cleanup materials that are photochemically reactive materials, in pounds per day [the summation of $(c \times d)$ for all such cleanup materials];
 - k. the hourly emissions from the cleanup materials that are not photochemically reactive materials, in pounds per hour [the summation of $(e \times f)$ for all such cleanup materials/h];
 - l. the total emissions from the cleanup materials that are not photochemically reactive materials, in pounds per day [the summation of $(e \times f)$ for all such cleanup materials]; and
 - m. the total OC emissions from all cleanup materials, in pounds $(j + l)$.
7. The permittee shall collect and record the following information each day for this emissions unit:
 - a. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per day (A.III.6.j + A.III.4.a);
 - b. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are photochemically reactive materials and all the final products, in pounds per hour (A.III.6.i + A.III.4.d);
 - c. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per day (A.III.6.l);

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

- d. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total hourly emissions from all the cleanup materials that are not photochemically reactive materials, in pounds per hour (A.III.6.k);
 - e. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total daily emissions from all final products and all cleanup materials, in pounds per day (A.III.6.l + A.III.4.b);
 - f. for each day during which no photochemically reactive material was used for any of the final products and any of the cleanup materials, the total hourly emissions from all final products and all cleanup materials, in pounds per hour (A.III.6.k + A.III.4.e); and
 - g. for each day during which any photochemically reactive material was used for one or more of the final products and/or as a cleanup material, the total daily emissions for all final products and all cleanup materials, in pounds per day (A.III.4.a + A.III.6.m).
8. The permittee shall record annually the OC emissions from this emissions unit and from emissions units P007 through P015, P018 through P020, and P024 through P036, combined. The annual emission (in tons) for this emissions unit shall be calculated by summing the values from A.III.6.e and A.III.6.g for the entire calendar year and then dividing by 2000.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 8 pounds per hour, and the actual average organic compound emission rate for each such day.
 - b. For the days during which a photochemically reactive material was employed for one or more of the final products and/or as a cleanup material, an identification of each day during which the average organic compound emissions from the emissions unit exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
 - c. For the days during which no photochemically reactive material was employed for any of the final products and any of the cleanup materials, an identification of each day during which the average hourly organic compound emissions from the emissions unit exceeded 50 pounds per hour, and the actual organic compound emission rate for each such day.
2. Each year, the permittee shall submit an annual report, by March 31, for the preceding calendar year. Each annual report shall specify the annual OC emissions for this emissions unit and for emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

V. Testing Requirements

1. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 40 (forty) pounds per day of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

2. Emission Limitation: On the days that photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit not more than 8 (eight) pounds per hour of organic compounds, as defined in OAC rule 3745-21-01.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

V. Testing Requirements (continued)

3. Emission Limitation: On the days that no photochemically reactive materials, as defined in OAC rule 3745-21-01, are employed, applied, evaporated, or dried, the permittee shall emit no more than 50 (fifty) pounds per hour of organic compounds.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions. If required by the Ohio EPA, compliance shall be demonstrated by emissions testing using U.S. EPA reference Methods 25, 25A, or 18.

4. Emission Limitation: 75 tons OC per year from emissions units P007 through P015, P018 through P020, and P024 through P036, combined.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping required in Section A.III of these terms and conditions.

5. Formulation data shall be used to determine the organic compound contents of the materials employed for each final product and each cleanup material.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Four cavity bag filter, S-9400	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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