State of Ohio Environmental Protection Agency

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

RE: DRAFT PERMIT TO INSTALL MODIFICATION **CERTIFIED MAIL**
ASHTABULA COUNTY
Application No: 02-22590
Fac ID: 0204010198
DATE: 4/8/2008

Gabriel Performance Products LLC
Dennis Woodard
725 State Rd.
Ashtabula, OH 44004

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **$ 400** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Permit Issuance and Data Management Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: **USEPA** **NEDO** **Eastgate Dev. & Trans Study** **NY** **PA**

ASHTABULA COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **02-22590** FOR AN AIR CONTAMINANT SOURCE
FOR **Gabriel Performance Products LLC**

On 4/8/2008 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Gabriel Performance Products LLC**, located at **725 State Rd, Ashtabula**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 02-22590:

Administrative Modification,adding clarifying language for 4 production areas.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Dennis Bush, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087
[(330)425-9171]

DRAFT MODIFICATION OF PERMIT TO INSTALL 02-22590

Application Number:	02-22590
Facility ID:	0204010198
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Gabriel Performance Products LLC
Person to Contact:	Dennis Woodard
Address:	725 State Rd. Ashtabula, OH 44004

Location of proposed air contaminant source(s) [emissions unit(s)]:
725 State Rd
Ashtabula, **Ohio**

Description of proposed emissions unit(s):
Administrative Modification,adding clarifying language for 4 production areas.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping 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 recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. 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.

4. 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.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction 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).

6. 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.

7. 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.

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

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

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

13. Source Operation and Operating Permit Requirements After Completion of Construction

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

14. Construction Compliance Certification

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

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

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

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

Pollutant	Tons Per Year
P009 (OC)	7.3
P010 (OC)	7.3
P011 (PE)	7.0
P012 (OC)	7.3
P013 (OC)	7.3
Facility-wide (for any one HAP)	9.9
Facility-wide (for any combination of HAP)	24.9

Emissions Unit ID: **P009**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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 specified in narrative form following the table.

Operations, Property, and/or Equipment -(P009) - Process Area No. I (See section A.2.c)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-07(G)(2)	The organic compounds (OC) emissions shall not exceed 8 lbs/hr and 40 lbs/day. See section A.2.a.
OAC rule 3745-31-05(C)	See section A.2.b.

2. Additional Terms and Conditions

2.a OC emissions from Process Area No. I contain photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).

The OC emission limitations of 8 pounds per hour and 40 pounds per day when photochemically reactive coatings or clean up materials are employed shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to these hourly and daily limitations included in sections C.3, D.1.a, D.1.b, E.1.a and E.1.b shall be void.

2.b The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual Hazardous Air Pollutant (HAP) based upon a rolling, 12-month summation of monthly emissions and 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions. HAPs are defined in Section 112(b) of Title III of the Clean Air Act.

2.c Production equipment for Process Area No. I consists of 750, 1400, 2000 and 2500 gallon reactor vessels with associated risers, condensers, receivers, and wash and blend tanks. This process area has its own drum/tote filling station

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without controls.

Emissions Unit ID: **P009**

B. Operational Restrictions

None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall develop emission factors for the amount of uncontrolled OC emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of OC emitted per batch run.

   The permittee shall develop emission factors for the amount of each uncontrolled HAP emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of each HAP emitted per batch run.

   The permittee shall submit emission factors for all products produced in this emissions unit. The emission factors for the reaction vessels, and all other pieces of equipment associated with this emissions unit, shall be computed based on calculation methods from the Pharmaceutical NESHAP or other Ohio EPA-approved calculation methods. The specific methodology used to calculate the OC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted prior to final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office. Detailed calculations of all OC emission factors and all HAP emission factors shall be kept on site and available for Ohio EPA review.

   If requested, the permittee shall conduct emission testing, at the request of the Ohio EPA, during the production of a specific final product to confirm the accuracy of the emission factor.

2. The permittee shall keep records of all materials used in this emissions unit for the purpose of determining the emission factors.

3. The permittee shall collect and record the following information each day for Process Area No. I:

   a. the product batch name and identification;

   b. the number of batches of each product produced;

   c. the hours of operation;

d. the total amount of daily OC emissions (DOC), in lbs/day, using the equation below:
DOC (lbs/day) = the summation of (b x EF) for all product batches

where:

EF = emission factor for each product batch, in pounds OC emissions per batch; and

e. the average, hourly OC emissions, in lbs/hr, using the equation below:

average OC (lbs/hr) = (d / c).

If a batch is not completed for the day, that is a partial batch has been produced, then the permittee shall sum emissions from all completed batch steps for that day to determine daily and average hourly emissions.

Note, the permittee has developed each emissions factors, in pounds OC emissions per batch, as a summation of batch steps for each product produced.

4. The permittee shall collect and record the following information each month for Process Area No. I:

a. the product batch name and identification;

b. the number of batches of each product produced; and

c. the total amount of monthly emissions of each HAP (MEHAP), using the equation below:

MEHAP (lbs/month) = the summation of (b x EF_HAP) for all product batches

where:

EF_HAP = emission factor for each product batch, in pounds of emissions of each HAP per batch.

If a batch is not completed for the last day of the month, that is a partial batch has been produced, the permittee shall sum emissions from all completed batch steps for that

day, and include those emissions to determine total monthly emissions.

Note, the permittee has developed each emissions factor, in pounds HAP emissions per batch, as a summation of batch steps for each product produced.

5. The permittee shall collect and record the following information each month on a facility-wide basis, for all emissions units at the facility:

   a. the total emissions of each individual HAP and total combined HAPs, in pounds per month; and

   b. the rolling, 12-month summation of emissions of each individual HAP and total combined HAPs, in tons.

6. The permit to install for this emissions unit (P009) was evaluated based on the actual 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: ethyl acetate
   TLV (ug/m3): 1,441,306.0
   Maximum Hourly Emission Rate (lbs/hr): 8.0
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
   MAGLC (ug/m3): 34,316.9

   Pollutant: toluene
   TLV (ug/m3): 188,404.9
   Maximum Hourly Emission Rate (lbs/hr): 8.0
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
   MAGLC (ug/m3): 4485.8

D. Reporting Requirements

Emissions Unit ID: **P009**

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:

   a. an identification of each day during which the average hourly OC emissions from this emissions unit exceeded 8 pounds per hour, and the actual average hourly OC emissions for each such day;

   b. an identification of each day during which the OC emissions from this emissions unit exceeded 40 pounds per day, and the actual OC emissions for each such day;

   c. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 9.9 tpy for each individual HAP, and the actual emissions for each such 12-month period; and

   d. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 24.9 tpy for total combined HAPs, and the actual emissions for each such 12-month period.

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

2. The permittee shall submit annual reports that specify the total amount of OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit annual reports that specify the total amount of emissions of total combined HAPs and the total amount of emissions for each individual HAP from all emissions units at this facility for the previous calendar year. These reports shall be submitted by January 31 of each year.

4. The evaluation described in section C.6 above determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   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.).

   The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

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E. Testing Requirements

1. Compliance with the emission limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emission Limitation:

      OC emissions shall not exceed 8 lbs/hr.

      Applicable Compliance Method:

      Compliance with the hourly allowable OC emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3 of this permit.

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or an equivalent alternate method as approved by Ohio EPA.

   b. Emission Limitation:

      OC emissions shall not exceed 40 lbs/day.

      Applicable Compliance Method:

      Compliance with the daily allowable OC emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3 of this permit.

   c. Emission Limitation:

      The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual HAP based upon a rolling, 12-month summation of monthly emissions.

      Applicable Compliance Method:

      Compliance with the tons/yr, allowable HAP emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements

specified in sections C.1, C.2, C.4 and C.5 of this permit.

d. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance with the tons/yr, allowable HAPs emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5 of this permit.

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F. Miscellaneous Requirements

None

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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 specified in narrative form following the table.

Operations, Property, and/or Equipment -(P010) - Process Area No. II (See section A.2.c)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-07(G)(2)	The organic compounds (OC) emissions shall not exceed 8 lbs/hr and 40 lbs/day. See section A.2.a.
OAC rule 3745-31-05(C)	See section A.2.b.

2. Additional Terms and Conditions

2.a OC emissions from Process Area No. II contain photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).

The OC emission limitations of 8 pounds per hour and 40 pounds per day when photochemically reactive coatings or clean up materials are employed shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to these hourly and daily limitations included in sections C.3, D.1.a, D.1.b, E.1.a and E.1.b shall be void.

2.b The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual Hazardous Air Pollutant (HAP) based upon a rolling, 12-month summation of monthly emissions and 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions. HAPs are defined in Section 112(b) of Title III of the Clean Air Act.

2.c Production equipment for Process Area No. II consists of 2000 and 3000 gallon reactor vessels, with associated risers, condensers, receivers, and capture

tanks.

Reactor vessels are controlled by a single air pollution control condenser.

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Process Areas No. II, IV and V share a common drum filling station, controlled by a carbon absorption system. The drum filling station is located in Area No. IV.

B. Operational Restrictions

None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall develop emission factors for the amount of uncontrolled OC emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of OC emitted per batch run.

   The permittee shall develop emission factors for the amount of each uncontrolled HAP emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of each HAP emitted per batch run.

   The permittee shall submit emission factors for all products produced in this emissions unit. The emission factors for the reaction vessels, and all other pieces of equipment associated with this emissions unit, shall be computed based on calculation methods from the Pharmaceutical NESHAP or other Ohio EPA-approved calculation methods. The specific methodology used to calculate the OC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted prior to final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office. Detailed calculations of all OC emission factors and all HAP emission factors shall be kept on site and available for Ohio EPA review.

   If requested, the permittee shall conduct emission testing, at the request of the Ohio EPA, during the production of a specific final product to confirm the accuracy of the emission factor.

2. The permittee shall keep records of all materials used in this emissions unit for the purpose of determining the emission factors.

3. The permittee shall collect and record the following information each day for Process Area No. II:

   a. the product batch name and identification;

b. the number of batches of each product produced;

c. the hours of operation;

d. the total amount of daily OC emissions (DOC), in lbs/day, using the equation below:

DOC (lbs/day) = the summation of (b x EF) for all product batches x (1 - CE1) + the summation of (b x EF_dfs) for all product batches x (1 - CE)

where:

EF = emission factor for each product batch, in pounds OC emissions per batch;

EF_dfs = emission factor for each product batch at the drum filling station, in pounds OC emissions per batch;

CE1 = fractional control efficiency of the air pollution control condenser;

CE = fractional control efficiency of the carbon absorption system; and

e. the average, hourly OC emissions, in lbs/hr, using the equation below:

average OC (lbs/hr) = (d / c).

If a batch is not completed for the day, that is a partial batch has been produced, then the permittee shall sum emissions from all completed batch steps for that day to determine daily and average hourly emissions.

Note, the permittee has developed each emissions factors, in pounds OC emissions per batch, as a summation of batch steps for each product produced.

4. The permittee shall collect and record the following information each month for Process Area No. II:

a. the product batch name and identification;

b. the number of batches of each product produced; and

c. the total amount of monthly emissions of each HAP (MEHAP), using the equation below:

MEHAP (lbs/day) = the summation of (b x EF_HAP) for all product batches x (1 - CE1) + the summation of (b x EF_HAP_dfs) for all product batches x (1 - CE)

where:

EF_HAP = emission factor for each product batch, in pounds of emissions of each HAP per batch;

EF_HAP_dfs = emission factor for each product batch at the drum filling station, in pounds of each HAP emissions per batch;

CE1 = fractional control efficiency of the air pollution control condenser; and

CE = fractional control efficiency of the carbon absorption system.

If a batch is not completed for the last day of the month, that is a partial batch has been produced, the permittee shall sum emissions from all completed batch steps for that day, and include those emissions to determine total monthly emissions.

Note, the permittee has developed each emissions factor, in pounds HAP emissions per batch, as a summation of batch steps for each product produced.

5. The permittee shall collect and record the following information each month on a facility-wide basis, for all emissions units at the facility:

   a. the total emissions of each individual HAP and total combined HAPs, in pounds per month; and

   b. the rolling, 12-month summation of emissions of each individual HAP and total combined HAPs, in tons.

6. The carbon adsorption system shall be continuously maintained to ensure that the existing carbon is replaced with fresh carbon immediately when breakthrough is indicated.

   Breakthrough means that point in the adsorption step when the mass transfer zone (i.e., the section of the carbon bed where the HAP is removed from the carrier gas stream) first reaches the carbon bed outlet as the mass transfer zone moves down the bed in the direction of flow. The breakthrough point is characterized by the beginning of a sharp increase in the outlet HAP or OC concentration.

   The permittee shall monitor and record the concentration level of the OC in the carbon adsorption system's exhaust stream daily, or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

   The permittee shall monitor and record all periods when carbon breakthrough is

detected. Existing carbon shall be replaced with fresh carbon immediately upon carbon breakthrough. The permittee shall record the date when the existing carbon is replaced with fresh carbon.

As an alternative, the permittee shall replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon

replacement interval, as determined by the maximum design flow rate and the organic concentration in the gas stream.

7. The permittee shall properly operate and maintain equipment to continuously monitor and record the temperature of the exhaust gases of the condenser during operation of this emissions unit, including periods of startup and shutdown. Units shall be in degrees Celsius. The accuracy for each thermocouple, monitor and recorder shall be guaranteed by the manufacturer to be within +/- 1 percent of the temperature being measured or +/- 5 degrees Celsius, whichever is greater. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

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

   a. the average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.

   Whenever the monitored value for the temperature of the exhaust gases of the condenser exceeds the level specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the temperature of the exhaust gases of the condenser below the maximum level specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the temperature readings immediately after the corrective action and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

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The acceptable average temperature of the exhaust gases from the condenser, for any 3-hour block of time, is not more than 20 degrees Celsius.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the values based upon information obtained during future OC

emission tests that demonstrate compliance with the allowable OC emission rate for this emissions unit. In addition, approved revisions to the minimum value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a administrative modification.

8. The permit to install for this emissions unit (P010) was evaluated based on the actual 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: ethyl acetate
   TLV (ug/m3): 1,441,306.0
   Maximum Hourly Emission Rate (lbs/hr): 8.0
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 436.1
   MAGLC (ug/m3): 34,316.9

   Pollutant: toluene
   TLV (ug/m3): 188,404.9
   Maximum Hourly Emission Rate (lbs/hr): 8.0
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 436.1
   MAGLC (ug/m3): 4485.8

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:

   a. an identification of each day during which the average hourly OC emissions from this emissions unit exceeded 8 pounds per hour, and the actual average hourly OC emissions for each such day;

   b. an identification of each day during which the OC emissions from this emissions unit exceeded 40 pounds per day, and the actual OC emissions for each such day;

c. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 9.9 tpy for each individual HAP, and the actual emissions for each such 12-month period;

d. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 24.9 tpy for total combined HAPs, and the actual emissions for each such 12-month period;

e. an identification of each period of time during which the existing carbon in the carbon absorption system is not replaced with fresh carbon immediately when breakthrough is indicated; and

f. an identification of each day during which the outlet temperature of the cooling fluid of the condenser exceeded 20 degrees Celsius, and the actual outlet temperature of the cooling fluid of the condenser, in degrees Celsius, for each such day.

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

2. The permittee shall submit annual reports that specify the total amount of OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit annual reports that specify the total amount of emissions of total combined HAPs and the total amount of emissions for each individual HAP from all emissions units at this facility for the previous calendar year. These reports shall be submitted by January 31 of each year.

4. The evaluation described in section C.8 above determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

a. Emission Limitation:

OC emissions shall not exceed 8 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation above may be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3 of this permit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

OC emissions shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance with the daily allowable OC emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements

specified in sections C.1, C.2 and C.3 of this permit.

c. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual HAP based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance with the tons/yr, allowable HAP emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5 of this permit.

d. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance with the tons/yr, allowable HAPs emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5 of this permit.

F. Miscellaneous Requirements

None

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P011) - Process Area No. III (See section A.2.b)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-11(B)	The particulate emissions (PE) shall not exceed 1.6 lbs/hr.
OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as specified by the rule.
ORC 3704.03(T)(4)	See section A.2.a.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the calculated annual emission rate for particulate emissions is less than ten tons per year taking into account the federally enforceable rule limit of 1.6 lbs PE/hr under OAC rule 3745-17-11.

2.b Process Area No. III is controlled by a wet scrubber.

B. Operational Restrictions

None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the scrubber water flow rate, in gallons per minute, during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record weekly the scrubber water flow rate, in gallons per minute.

Whenever the monitored value for scrubber water flow rate deviates below the minimum value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date the investigation was conducted, the names of the personnel who conducted the investigation and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the scrubber water flow rate readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the scrubber water flow rate is 55 gallons per minute or more. These values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the values based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the minimum value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a administrative modification.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate was not maintained at or above the required level.

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

E. Testing Requirements

Issued: To be entered upon final issuance

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

   a. Emission Limitation:

   PE shall not exceed 1.6 lbs/hr.

   Applicable Compliance Method:

   If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

   b. Emission Limitation:

   Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as specified by the rule.

   Applicable Compliance Method:

   Compliance shall be determined through visible emission 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).

F. Miscellaneous Requirements

None

Emissions Unit ID: **P012**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P012) - Process Area No. IV (See section A.2.c)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-07(G)(2)	The organic compounds (OC) emissions shall not exceed 8 lbs/hr and 40 lbs/day. See section A.2.a.
OAC rule 3745-31-05(C)	See section A.2.b.

2. Additional Terms and Conditions

2.a OC emissions from Process Area No. IV contain photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).

The OC emission limitations of 8 pounds per hour and 40 pounds per day when photochemically reactive coatings or clean up materials are employed shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to these hourly and daily limitations included in sections C.3, D.1.a, D.1.b, E.1.a and E.1.b shall be void.

2.b The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual Hazardous Air Pollutant (HAP) based upon a rolling, 12-month summation of monthly emissions and 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions. HAPs are defined in Section 112(b) of Title III of the Clean Air Act.

2.c Production equipment for Process Area No. IV consists of two (2) 4000 gallon reactor vessels with associated risers, condensers, receivers and capture tanks.

Issued: To be entered upon final issuance

Process Areas No. II, IV and V share a common drum filling station, controlled by a carbon absorption system. The drum filling station is located in Area No. IV.

B. Operational Restrictions

None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall develop emission factors for the amount of uncontrolled OC emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of OC emitted per batch run.

   The permittee shall develop emission factors for the amount of each uncontrolled HAP emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of each HAP emitted per batch run.

   The permittee shall submit emission factors for all products produced in this emissions unit. The emission factors for the reaction vessels, and all other pieces of equipment associated with this emissions unit, shall be computed based on calculation methods from the Pharmaceutical NESHAP or other Ohio EPA-approved calculation methods. The specific methodology used to calculate the OC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted prior to final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office. Detailed calculations of all OC emission factors and all HAP emission factors shall be kept on site and available for Ohio EPA review.

   If requested, the permittee shall conduct emission testing, at the request of the Ohio EPA, during the production of a specific final product to confirm the accuracy of the emission factor.

2. The permittee shall keep records of all materials used in this emissions unit for the purpose of determining the emission factors.

3. The permittee shall collect and record the following information each day for Process Area No. IV:

   a. the product batch name and identification;

b. the number of batches of each product produced;

c. the hours of operation;

d. the total amount of daily OC emissions (DOC), in lbs/day, using the equation below:
DOC (lbs/day) = the summation of (b x EF) for all product batches + the summation of (b x EF_dfs) for all product batches x (1 - CE)

where:

EF = emission factor for each product batch, in pounds OC emissions per batch;

EF_dfs = emission factor for each product batch at the drum filling station, in pounds OC emissions per batch;

CE = fractional control efficiency of the carbon absorption system; and

e. the average, hourly OC emissions, in lbs/hr, using the equation below:

average OC (lbs/hr) = (d / c).

If a batch is not completed for the day, that is a partial batch has been produced, then the permittee shall sum emissions from all completed batch steps for that day to determine daily and average hourly emissions.

Note, the permittee has developed each emissions factors, in pounds OC emissions per batch, as a summation of batch steps for each product produced.

4. The permittee shall collect and record the following information each month for Process Area No. IV:

a. the product batch name and identification;

b. the number of batches of each product produced; and

c. the total amount of monthly emissions of each HAP (MEHAP), using the equation below:

MEHAP (lbs/day) = the summation of (b x EF_HAP) for all product batches + the summation of (b x EF_HAP_dfs) for all product batches x (1 - CE)

where:

EF_HAP = emission factor for each product batch, in pounds of emissions of each HAP per batch;

EF_HAP_dfs = emission factor for each product batch at the drum filling station, in pounds of each HAP emissions per batch; and

CE = fractional control efficiency of the carbon absorption system.

If a batch is not completed for the last day of the month, that is a partial batch has been produced, the permittee shall sum emissions from all completed batch steps for that day, and include those emissions to determine total monthly emissions.

Note, the permittee has developed each emissions factor, in pounds HAP emissions per batch, as a summation of batch steps for each product produced.

5. The permittee shall collect and record the following information each month on a facility-wide basis, for all emissions units at the facility:

   a. the total emissions of each individual HAP and total combined HAPs, in pounds per month; and

   b. the rolling, 12-month summation of emissions of each individual HAP and total combined HAPs, in tons.

6. The carbon adsorption system shall be continuously maintained to ensure that the existing carbon is replaced with fresh carbon immediately when breakthrough is indicated.

   Breakthrough means that point in the adsorption step when the mass transfer zone (i.e., the section of the carbon bed where the HAP is removed from the carrier gas stream) first reaches the carbon bed outlet as the mass transfer zone moves down the bed in the direction of flow. The breakthrough point is characterized by the beginning of a sharp increase in the outlet HAP or OC concentration.

   The permittee shall monitor and record the concentration level of the OC in the carbon

adsorption system's exhaust stream daily, or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

The permittee shall monitor and record all periods when carbon breakthrough is detected. Existing carbon shall be replaced with fresh carbon immediately upon carbon breakthrough. The permittee shall record the date when the existing carbon is replaced with fresh carbon.

As an alternative, the permittee shall replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval, as determined by the maximum design flow rate and the organic concentration in the gas stream.

7. The permit to install for this emissions unit (P012) was evaluated based on the actual 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: ethyl acetate
TLV (ug/m3): 1,441,306.0
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 172.9
MAGLC (ug/m3): 34,316.9

Pollutant: toluene
TLV (ug/m3): 188,404.9
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 172.9
MAGLC (ug/m3): 4485.8

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:

   a. an identification of each day during which the average hourly OC emissions from this emissions unit exceeded 8 pounds per hour, and the actual average hourly OC emissions for each such day;

   b. an identification of each day during which the OC emissions from this emissions unit exceeded 40 pounds per day, and the actual OC emissions for each such day;

   c. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 9.9 tpy for each individual HAP, and the actual emissions for each such 12-month period;

   d. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 24.9 tpy for total combined HAPs, and the actual emissions for each such 12-month period; and

   e. an identification of each period of time during which the existing carbon in the carbon absorption system is not replaced with fresh carbon immediately when breakthrough is indicated.

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

2. The permittee shall submit annual reports that specify the total amount of OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit annual reports that specify the total amount of emissions of total combined HAPs and the total amount of emissions for each individual HAP from all emissions units at this facility for the previous calendar year. These reports shall be submitted by January 31 of each year.

4. The evaluation described in section C.7 above determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in sections A.1 and A.2 of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

OC emissions shall not exceed 8 lbs/hr.

<u>Applicable Compliance Method:</u>

Compliance with the hourly allowable OC emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

OC emissions shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance with the daily allowable OC emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3.

c. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual HAP based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance with the tons/yr, allowable HAP emission limitation above shall be based on the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5.

d. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance with the tons/yr, allowable HAPs emission limitation above shall be based on the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5.

F. Miscellaneous Requirements

Issued: To be entered upon final issuance

None

Issued: To be entered upon final issuance

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P013) - Process Area No. V (See section A.2.c)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-07(G)(2)	The organic compounds (OC) emissions shall not exceed 8 lbs/hr and 40 lbs/day. See section A.2.a.
OAC rule 3745-31-05(C)	See section A.2.b.

2. Additional Terms and Conditions

2.a OC emissions from Process Area No. V contain photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).

The OC emission limitations of 8 pounds per hour and 40 pounds per day when photochemically reactive coatings or clean up materials are employed shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to these hourly and daily limitations included in sections C.3, D.1.a, D.1.b, E.1.a and E.1.b shall be void.

2.b The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual Hazardous Air Pollutant (HAP) based upon a rolling, 12-month summation of monthly emissions and 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions. HAPs are defined in Section 112(b) of Title III of the Clean Air Act.

2.c Production equipment for Process Area No. V consists of 4000 and 5000 gallon reactor vessels with associated risers, condensers, receivers and capture tanks.

Process Areas No. II, IV and V share a common drum filling station, controlled by a carbon absorption system. The drum filling station is located in Area No. IV.

B. Operational Restrictions

None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall develop emission factors for the amount of uncontrolled OC emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of OC emitted per batch run.

   The permittee shall develop emission factors for the amount of each uncontrolled HAP emitted for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of pounds of each HAP emitted per batch run.

   The permittee shall submit emission factors for all products produced in this emissions unit. The emission factors for the reaction vessels, and all other pieces of equipment associated with this emissions unit, shall be computed based on calculation methods from the Pharmaceutical NESHAP or other Ohio EPA-approved calculation methods. The specific methodology used to calculate the OC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted prior to final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office. Detailed calculations of all OC emission factors and all HAP emission factors shall be kept on site and available for Ohio EPA review.

   If requested, the permittee shall conduct emission testing, at the request of the Ohio EPA, during the production of a specific final product to confirm the accuracy of the emission factor.

2. The permittee shall keep records of all materials used in this emissions unit for the purpose of determining the emission factors.

3. The permittee shall collect and record the following information each day for Process Area No. V:

   a. the product batch name and identification;

b. the number of batches of each product produced;

c. the hours of operation;

d. the total amount of daily OC emissions (DOC), in lbs/day, using the equation below:
DOC (lbs/day) = the summation of (b x EF) for all product batches + the summation of (b x EF_dfs) for all product batches x (1 - CE)

where:

EF = emission factor for each product batch, in pounds OC emissions per batch;

EF_dfs = emission factor for each product batch at the drum filling station, in pounds OC emissions per batch;

CE = fractional control efficiency of the carbon absorption system; and

e. the average, hourly OC emissions, in lbs/hr, using the equation below:

average OC (lbs/hr) = (d / c).

If a batch is not completed for the day, that is a partial batch has been produced, then the permittee shall sum emissions from all completed batch steps for that day to determine daily and average hourly emissions.

Note, the permittee has developed each emissions factors, in pounds OC emissions per batch, as a summation of batch steps for each product produced.

4. The permittee shall collect and record the following information each month for Process Area No. V:

a. the product batch name and identification;

b. the number of batches of each product produced;

c. the total amount of monthly emissions of each HAP (MEHAP), using the equation below:

MEHAP (lbs/day) = the summation of (b x EF_HAP) for all product batches + the summation of (b x EF_HAP_dfs) for all product batches x (1 - CE)

where:

EF_HAP = emission factor for each product batch, in pounds of emissions of each HAP per batch;

EF_HAP_dfs = emission factor for each product batch at the drum filling station, in pounds of each HAP emissions per batch; and

CE = fractional control efficiency of the carbon absorption system.

If a batch is not completed for the last day of the month, that is a partial batch has been produced, the permittee shall sum emissions from all completed batch steps for that day, and include those emissions to determine total monthly emissions.

Note, the permittee has developed each emissions factor, in pounds HAP emissions per batch, as a summation of batch steps for each product produced.

5. The permittee shall collect and record the following information each month on a facility-wide basis, for all emissions units at the facility:

   a. the total emissions of each individual HAP and total combined HAPs, in pounds per month; and

   b. the rolling, 12-month summation of emissions of each individual HAP and total combined HAPs, in tons.

6. The carbon adsorption system shall be continuously maintained to ensure that the existing carbon is replaced with fresh carbon immediately when breakthrough is indicated.

   Breakthrough means that point in the adsorption step when the mass transfer zone (i.e., the section of the carbon bed where the HAP is removed from the carrier gas stream) first reaches the carbon bed outlet as the mass transfer zone moves down the bed in the direction of flow. The breakthrough point is characterized by the beginning of a sharp increase in the outlet HAP or OC concentration.

   The permittee shall monitor and record the concentration level of the OC in the carbon

adsorption system's exhaust stream daily, or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

The permittee shall monitor and record all periods when carbon breakthrough is detected. Existing carbon shall be replaced with fresh carbon immediately upon carbon breakthrough. The permittee shall record the date when the existing carbon is replaced with fresh carbon.

As an alternative, the permittee shall replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval, as determined by the maximum design flow rate and the organic concentration in the gas stream.

7. The permit to install for this emissions unit (P013) was evaluated based on the actual 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum

ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: ethyl acetate
TLV (ug/m3): 1,441,306.0
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 187.6
MAGLC (ug/m3): 34,316.9

Pollutant: toluene
TLV (ug/m3): 188,404.9
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 187.6
MAGLC (ug/m3): 4485.8

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:

   a. an identification of each day during which the average hourly OC emissions from this emissions unit exceeded 8 pounds per hour, and the actual average hourly OC emissions for each such day;

   b. an identification of each day during which the OC emissions from this emissions unit exceeded 40 pounds per day, and the actual OC emissions for each such day;

   c. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 9.9 tpy for each individual HAP, and the actual emissions for each such 12-month period;

   d. an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 24.9 tpy for total combined HAPs, and the actual emissions for each such 12-month period; and

   e. an identification of each period of time during which the existing carbon in the carbon absorption system is not replaced with fresh carbon immediately when

breakthrough is indicated.

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

2. The permittee shall submit annual reports that specify the total amount of OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit annual reports that specify the total amount of emissions of total combined HAPs and the total amount of emissions for each individual HAP from all emissions units at this facility for the previous calendar year. These reports shall be submitted by January 31 of each year.

4. The evaluation described in section C.7 above determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   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.).

   The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in sections A.1 and A.2 of the terms and

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conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

OC emissions shall not exceed 8 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation above shall be based on the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3 of this permit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or an equivalent alternate method as approved by Ohio EPA.

b. Emission Limitation:

OC emissions shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance with the daily allowable OC emission limitation above shall be based on the monitoring and record keeping requirements specified in sections C.1, C.2 and C.3 of this permit.

c. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 9.9 tons/yr of any individual HAP based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance with the tons/yr, allowable HAP emission limitation above shall demonstrated be based upon the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5.

d. Emission Limitation:

The total emissions from all emissions units at this facility shall not exceed 24.9 tons/yr of total combined HAPs based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Emissions Unit ID: **P013**

Compliance with the tons/yr, allowable HAPs emission limitation above shall be demonstrated based upon the monitoring and record keeping requirements specified in sections C.1, C.2, C.4 and C.5.

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F. Miscellaneous Requirements

None