John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

6/10/2014

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Tyce Workman
GABRIEL PERFORMANCE PRODUCTS LLC
725 STATE RD
ASHTABULA, OH 44004

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0204010198
Permit Number: P0116158
Permit Type: Renewal
County: Ashtabula

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to “Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General’s Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-NEDO

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
GABRIEL PERFORMANCE PRODUCTS LLC

Facility ID:	0204010198
Permit Number:	P0116158
Permit Type:	Renewal
Issued:	6/10/2014
Effective:	6/10/2014
Expiration:	10/15/2014

Division of Air Pollution Control
Permit-to-Install and Operate
for
GABRIEL PERFORMANCE PRODUCTS LLC

Table of Contents

Authorization 1

A. Standard Terms and Conditions 3

1. What does this permit-to-install and operate ("PTIO") allow me to do? 4
2. Who is responsible for complying with this permit? 4
3. What records must I keep under this permit? 4
4. What are my permit fees and when do I pay them? 4
5. When does my PTIO expire, and when do I need to submit my renewal application? 4
6. What happens to this permit if my project is delayed or I do not install or modify my source? 5
7. What reports must I submit under this permit? 5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? 5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? 5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6
13. Can I transfer this permit to a new owner or operator? 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7
15. What happens if a portion of this permit is determined to be invalid? 7

B. Facility-Wide Terms and Conditions 8

C. Emissions Unit Terms and Conditions 11

1. P009, Process Area No. I 12
2. P010, Process Area No. II 19
3. P011, Process Area No. III 29
4. P012, Process Area No. IV 37
5. P013, Process Area No. V 45

Authorization

Facility ID:	0204010198
Application Number(s):	A0048237
Permit Number:	P0116158
Permit Description:	FEPTIO renewal permit for five process areas for the manufacturing of high quality specialty chemicals
Permit Type:	Renewal
Permit Fee:	$0.00
Issue Date:	6/10/2014
Effective Date:	6/10/2014
Expiration Date:	10/15/2014

Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15

This document constitutes issuance to:

GABRIEL PERFORMANCE PRODUCTS LLC
725 STATE RD
ASHTABULA, OH 44004

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

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s))listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0116158
Permit Description: FEPTIO renewal permit for five process areas for the manufacturing of high quality specialty chemicals

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

Emissions Unit ID:	**P009**
Company Equipment ID:	Process Area No. I
Superseded Permit Number:	P0104744
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P010**
Company Equipment ID:	Process Area No. II
Superseded Permit Number:	P0104744
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P011**
Company Equipment ID:	Process Area No. III
Superseded Permit Number:	P0107050
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P012**
Company Equipment ID:	Process Area No. IV
Superseded Permit Number:	P0104744
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P013**
Company Equipment ID:	Process Area No. V
Superseded Permit Number:	P0104744
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee.This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee.Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. “Shut down” means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as beingpermanently shut down without first applying for and obtaining a permit pursuantto OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) None.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) B.2 through B.5.

2. 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 or 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.

3. 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.

4. The permittee shall submit quarterly deviation (excursion) reports that identify:

   a) all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

      (1) 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

      (2) 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;

   b) the probable cause of each deviation (excursion);

   c) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

   d) the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Ohio EPA Northeast District Office).

5. The permittee shall submit annual reports that specify both the total amount of emissions of combined HAPs and the total amount of emissions which are greater 1 tpy for each, individual HAP from all emissions units at this facility for the previous calendar year. These reports shall be submitted by April 15 of each year.

C. Emissions Unit Terms and Conditions

1. P009, Process Area No. I

Operations, Property and/or Equipment Description:

Process Area No. I (See b)(2)c.)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(5), d)(6), d)(7), d)(8) and e)(2).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. d)(1), d)(2) and d)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic compounds (VOC) emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D)(1)(a)	See B.2 through B.5. See d)(1), d)(2) and d)(4).
d.	ORC 3704.03(F)(4)(d)	See d)(5), d)(6), d)(7), d)(8) and e)(2).
e.	OAC rule 3745-21-14	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph

(A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/year.

c. Production equipment consists of reactor vessels with associated risers, condensers, receivers, wash and blend tanks. This process area has its own drum/tote filling station without controls.

d. The facility is not subject to this rule, because it does not meet the applicability criterion of having total facility-wide potential VOC emissions at or greater than 100 tpy.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall develop emission factors for the amount of uncontrolled VOC 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 VOC emitted per batch run.

The permittee shall develop emission factors for the amount of 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 individual 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 VOC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office. and shall be subject to the review and approval of the Ohio EPA Northeast District Office. Detailed calculations of all VOC 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 month for this emissions unit for product batches with VOC emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly VOC emissions, in lbs/month, using the equation below:

VOC (lbs/month) = the summation of (b x EF) for all product batches produced

where:

EF = emission factor for each product batch, in pounds VOC emissions per batch.

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(4) The permittee shall collect and record the following information each month for this emissions unit for product batches with HAP emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly emissions of individual HAP, using the equation below:

Individual HAP (lbs/month) = the summation of (b x EF_iHAP) for all product batches produced

where:

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

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(5) The federally enforceable permit-to-install and operate (FEPTIO) application for this emissions unit, P009 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Toluene

TLV (mg/m3): 75.4
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
MAGLC (ug/m3): 1794.3

The permittee, has demonstrated that emissions of Toluene, from emissions unit P009, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

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

a. each month when the VOC emissions exceeded the 1,216 pounds per month limit, and the actual VOC emissions for each such month.

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

(2) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(1), d)(2) and d)(3) of these terms and conditions.

The annual emission limitation was developed by multiplying the monthly VOC emission limitation (1,216 lbs/month) by 12 months per year, and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the monthly allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.

2. P010, Process Area No. II

Operations, Property and/or Equipment Description:

Process Area No. II (See b)(2)c.)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(7), d)(8), d)(9), d)(10) and e)(3).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(2)d, b)(2)e, c)(1), c)(2), d)(1), d)(2), d)(4), d)(5), d)(6) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic compounds (VOC) emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D)(1)(a)	See B.2 through B.5. See b)(2)d, b)(2)e, c)(1), c)(2), d)(1), d)(2) d)(4), d)(5), d)(6) and e)(1).
d.	ORC 3704.03(F)(4)(d)	See d)(7), d)(8), d)(9), d)(10) and e)(3).
e.	OAC rule 3745-21-14	See b)(2)f.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as

effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/year.

c. Production equipment consists of reactor vessels, with associated risers, condensers, receivers, and capture tanks.

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

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

d. All VOC and HAP emissions emitted from product loading at the drum filling station located in Process Area No. IV from products produced by this emissions unit shall be vented to a carbon adsorption system that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

e. All VOC and HAP emissions emitted from this emissions unit, except those emissions emitted at the drum filling station, shall be vented to a condenser that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

f. The facility is not subject to this rule, because it does not meet the applicability criterion of having total facility-wide potential VOC emissions at or greater than 100 tpy.

c) Operational Restrictions

(1) 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.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall develop emission factors for the amount of uncontrolled VOC 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 VOC emitted per batch run.

The permittee shall develop emission factors for the amount of 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 individual 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 VOC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon 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 VOC 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 month for this emissions unit for product batches with VOC emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly VOC emissions, in lbs/month, using the equation below:

VOC (lbs/month) = the summation of (b x EF) for all product batches produced x (1 - CE1) + the summation of (b x EF_dfs) for all product batches produced x (1 - CE2)

where:

EF = emission factor for each product batch, in pounds VOC emissions per batch;
EF_dfs = emission factor for each product batch at the drum filling station, in pounds VOC emissions per batch;
CE1 = fractional control efficiency of the air pollution control condenser; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV).

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(4) The permittee shall collect and record the following information each month for this emissions unit for product batches with HAP emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly emissions of individual HAP, using the equation below:

Individual HAP (lbs/month) = the summation of (b x EF_iHAP) for all product batches produced x (1 - CE1) + the summation of (b x EF_iHAP_dfs) for all product batches produced x (1 - CE2)

where:

EF_iHAP = emission factor for each product batch, in pounds of emissions of individual HAP per batch;
EF_iHAP_dfs = emission factor for each product batch at the drum filling station, in pounds of emissions of an individual HAP per batch;
CE1 = fractional control efficiency of the air pollution control condenser; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV).

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(5) The carbon adsorption system in Area IV 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 VOC concentration.

The permittee shall monitor and record the concentration level of the VOC in the carbon adsorption system's exhaust stream daily when the drum filling station is in operation, 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 VOC concentration in the gas stream.

(6) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation, 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 temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

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 temperature of the exhaust gases from the condenser deviates from the range/limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

c. the date and time the deviation began;

d. the magnitude of the deviation at that time;

e. the date the investigation was conducted;

f. the name(s) of the personnel who conducted the investigation; and

g. 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/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

h. a description of the corrective action;

i. the date corrective action was completed;

j. the date and time the deviation ended;

k. the total period of time (in minutes) during which there was deviation;

l. the temperature readings of the exhaust gas from condenser immediately after the corrective action was implemented; and

m. the name(s) of the personnel who performed the work.

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

The exhaust gas temperature range/limit 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 permitted exhaust gas temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC emission rate for the controlled emissions unit(s). In addition, approved revisions to the exhaust gas temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(7) The federally enforceable permit-to-install and operate (FEPTIO) application for this emissions unit, P010 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw

materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Toluene
TLV (mg/m3): 75.4
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
MAGLC (ug/m3): 1794.3

The permittee, has demonstrated that emissions of Toluene, from emissions unit P010, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(8) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(9) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. any period of time (start time and date, and end time and date) during which the existing carbon in the carbon adsorption system is not replaced with fresh carbon immediately when breakthrough is indicated;

ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions from product loading at the drum filling station were not vented to the carbon adsorption system;

iii. any period of time (start time and date, and end time and date) when the average temperature of the exhaust gases from the condenser was outside of the acceptable range;

iv. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the condenser;

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion);

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

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each month when the VOC emissions exceeded the 1,216 pounds per month limit, and the actual VOC emissions for each such month.

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

(3) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

VOC emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(1), d)(2) and d)(3) of these terms and conditions.

The annual emission limitation was developed by multiplying the monthly VOC emission limitation (1,216 lbs/month) by 12 months per year, and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the monthly allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.

3. P011, Process Area No. III

Operations, Property and/or Equipment Description:

Process Area No. III (See b)(2)c.)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(6), d)(7), d)(8), d)(9) and e)(3).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(2)d, c)(1), d)(1), d)(2), d)(4), d)(5) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic compounds (VOC) emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D)(1)(a)	See B.2 through B.5. See b)(2)d, c)(1), d)(1), d)(2), d)(4), d)(5) and e)(1).
d.	ORC 3704.03(F)(4)(d)	See d)(6), d)(7), d)(8), d)(9) and e)(3).
e.	OAC rule 3745-21-14	See b)(2)e.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as

effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/year.

c. Production equipment consists of reactor vessels with associated risers, condensers, receivers and capture tanks

Process Area No. IV has a common drum filling station, which is utilized by other Process Areas. This drum filling station is equipped with a carbon adsorption system for controlling VOC and HAP emissions. Process Area No. III will use either the drum filling station at Process Area No. IV or its own drum filling station (no controls).

d. All VOC and HAP emissions emitted from product loading at the drum filling station in Process Area No. IV from products produced by this emissions unit shall be vented to a carbon adsorption system that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

e. The facility is not subject to this rule, because it does not meet the applicability criterion of having total facility-wide potential VOC emissions at or greater than 100 tpy.

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall develop emission factors for the amount of uncontrolled VOC 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 VOC emitted per batch run.

The permittee shall develop emission factors for the amount of 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 individual 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 VOC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon 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 VOC 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 month for this emissions unit for product batches with VOC emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly VOC emissions, in lbs/month, using the equation below:

VOC (lbs/month) = the summation of (b x EF) for all product batches produced + the summation of (b x EF_dfs) for all product batches produced x (1 - CE2)

where:

EF = emission factor for each product batch, in pounds VOC emissions per batch;
EF_dfs = emission factor for each product batch at each drum filling station, in pounds VOC emissions per batch; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV); CE2 is equal to (0) zero when utilizing the drum filling station (no controls) in Process Area No. III.

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(4) The permittee shall collect and record the following information each month for this emissions unit for product batches with HAP emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly emissions of individual HAP, using the equation below:

Individual HAP (lbs/month) = the summation of (b x EF_iHAP) for all product batches produced + the summation of (b x EF_iHAP_dfs) for all product batches produced x (1 - CE2)

where:

EF_iHAP = emission factor for each product batch, in pounds of emissions of individual HAP per batch;
EF_iHAP_dfs = emission factor for each product batch at the drum filling station, in pounds of emissions of an individual HAP per batch; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV); CE2 is equal to (0) zero when utilizing the drum filling station (no controls) at Process Area No. III.

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(5) The carbon adsorption system in Area IV 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 VOC concentration.

The permittee shall monitor and record the concentration level of the VOC in the carbon adsorption system's exhaust stream daily when the drum filling station is in operation, 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 VOC concentration in the gas stream.

(6) The federally enforceable permit-to-install and operate (FEPTIO) application for this emissions unit, P011 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Toluene
TLV (mg/m3): 75.4
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
MAGLC (ug/m3): 1794.3

The permittee, has demonstrated that emissions of Toluene, from emissions unit P011, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)

modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

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

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

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

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each month when the VOC emissions exceeded the 1,216 pounds per month limit, and the actual VOC emissions for each such month.

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

(3) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

VOC emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(1), d)(2) and d)(3) of these terms and conditions.

b. The annual emission limitation was developed by multiplying the monthly VOC emission limitation (1,216 lbs/month) by 12 months per year, and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the monthly allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.

4. P012, Process Area No. IV

Operations, Property and/or Equipment Description:

Process Area No. IV (See b)(2)c.)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(6), d)(7), d)(8), d)(9) and e)(3).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(2)d, c)(1), d)(1), d)(2), d)(4), d)(5) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic compounds (VOC) emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D)(1)(a)	See B.2 through B.5. See b)(2)d, c)(1), d)(1), d)(2), d)(4), d)(5) and e)(1).
d.	ORC 3704.03(F)(4)(d)	See d)(6), d)(7), d)(8), d)(9) and e)(3).
e.	OAC rule 3745-21-14	See b)(2)e.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as

effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/year.

c. Production equipment consists of reactor vessels with associated risers, condensers, receivers and capture tanks

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

d. All VOC and HAP emissions emitted from product loading at the drum filling station in Process Area No. IV from products produced by this emissions unit shall be vented to a carbon adsorption system that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

e. The facility is not subject to this rule, because it does not meet the applicability criterion of having total facility-wide potential VOC emissions at or greater than 100 tpy.

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall develop emission factors for the amount of uncontrolled VOC 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 VOC emitted per batch run.

The permittee shall develop emission factors for the amount of 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 individual 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 VOC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon 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 VOC 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 month for this emissions unit for product batches with VOC emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly VOC emissions, in lbs/month, using the equation below:

VOC (lbs/month) = the summation of (b x EF) for all product batches produced + the summation of (b x EF_dfs) for all product batches produced x (1 - CE2)

where:

EF = emission factor for each product batch, in pounds VOC emissions per batch;
EF_dfs = emission factor for each product batch at the drum filling station, in pounds VOC emissions per batch; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV).

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(4) The permittee shall collect and record the following information each month for this emissions unit for product batches with HAP emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly emissions of individual HAP, using the equation below:

Individual HAP (lbs/month) = the summation of (b x EF_iHAP) for all product batches produced + the summation of (b x EF_iHAP_dfs) for all product batches produced x (1 - CE2)

where:

EF_iHAP = emission factor for each product batch, in pounds of emissions of individual HAP per batch;
EF_iHAP_dfs = emission factor for each product batch at the drum filling station, in pounds of emissions of an individual HAP per batch; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV).

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(5) The carbon adsorption system in Area IV 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 VOC concentration.

The permittee shall monitor and record the concentration level of the VOC in the carbon adsorption system's exhaust stream daily when the drum filling station is in operation, 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 VOC concentration in the gas stream.

(6) The federally enforceable permit-to-install and operate (FEPTIO) application for this emissions unit, P012 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Toluene
TLV (mg/m3): 75.4
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
MAGLC (ug/m3): 1794.3

The permittee, has demonstrated that emissions of Toluene, from emissions unit P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)

modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

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

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

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

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each month when the VOC emissions exceeded the 1,216 pounds per month limit, and the actual VOC emissions for each such month.

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

(3) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

VOC emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(1), d)(2) and d)(3) of these terms and conditions.

b. The annual emission limitation was developed by multiplying the monthly VOC emission limitation (1,216 lbs/month) by 12 months per year, and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the monthly allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.

5. P013, Process Area No. V

Operations, Property and/or Equipment Description:

Process Area No. V (See b)(2)c.)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(6), d)(7), d)(8), d)(9) and e)(3).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(2)d, c)(1), d)(1), d)(2), d)(4), d)(5) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic compounds (VOC) emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D)(1)(a)	See B.2 through B.5. See b)(2)d, c)(1), d)(1), d)(2), d)(4), d)(5) and e)(1).
d.	ORC 3704.03(F)(4)(d)	See d)(6), d)(7), d)(8), d)(9) and e)(3).
e.	OAC rule 3745-21-14	See b)(2)e.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as

effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/year.

c. Production equipment consists of reactor vessels with associated risers, condensers, receivers and capture tanks.

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

d. All VOC and HAP emissions emitted from product loading at the drum filling station in Process Area No. IV from products produced by this emissions unit shall be vented to a carbon adsorption system that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

e. The facility is not subject to this rule, because it does not meet the applicability criterion of having total facility-wide potential VOC emissions at or greater than 100 tpy.

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall develop emission factors for the amount of uncontrolled VOC 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 VOC emitted per batch run.

The permittee shall develop emission factors for the amount of 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 individual 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 VOC emissions and HAPs emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon 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 VOC 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 month for this emissions unit for product batches with VOC emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly VOC emissions, in lbs/month, using the equation below:

VOC (lbs/month) = the summation of (b x EF) for all product batches produced + the summation of (b x EF_dfs) for all product batches produced x (1 - CE2)

where:

EF = emission factor for each product batch, in pounds VOC emissions per batch;
EF_dfs = emission factor for each product batch at the drum filling station, in pounds VOC emissions per batch; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV).

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(4) The permittee shall collect and record the following information each month for this emissions unit for product batches with HAP emissions:

a. the product batch name and identification;
b. the number of product batches produced for each product; and
c. the total amount of monthly emissions of individual HAP, using the equation below:

Individual HAP (lbs/month) = the summation of (b x EF_iHAP) for all product batches produced + the summation of (b x EF_iHAP_dfs) for all product batches produced x (1 - CE2)

where:

EF_iHAP = emission factor for each product batch, in pounds of emissions of individual HAP per batch;
EF_iHAP_dfs = emission factor for each product batch at the drum filling station, in pounds of emissions of an individual HAP per batch; and
CE2 = fractional control efficiency of the carbon adsorption system (the drum filling station in Process Area No. IV).

If a batch is being processed and is not completed by the end of the last day of the month, the permittee shall sum emissions from all completed batch steps processed prior to the end of last day of the month and include those emissions to the month's total (the total amount of monthly emissions emitted, in lbs/month).

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

(5) The carbon adsorption system in Area IV 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 VOC concentration.

The permittee shall monitor and record the concentration level of the VOC in the carbon adsorption system's exhaust stream daily when the drum filling station is in operation, 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.

(6) The federally enforceable permit-to-install and operate (FEPTIO) application for this emissions unit, P013 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Toluene
TLV (mg/m3): 75.4
Maximum Hourly Emission Rate (lbs/hr): 8.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 692.3
MAGLC (ug/m3): 1794.3

The permittee, has demonstrated that emissions of Toluene, from emissions unit P013, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" 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 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)

modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

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

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

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

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each month when the VOC emissions exceeded the 1,216 pounds per month limit, and the actual VOC emissions for each such month.

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

(3) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

VOC emissions shall not exceed 1,216 lbs/month and 7.3 tons/yr.

<u>Applicable Compliance Method:</u>

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(1), d)(2) and d)(3) of these terms and conditions.

b. The annual emission limitation was developed by multiplying the monthly VOC emission limitation (1,216 lbs/month) by 12 months per year, and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the monthly allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.