



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

4/26/2012

RICHARD RINGS
SUN CHEMICAL CORPORATION
4526 CHICKERING AVE
CINCINNATI, OH 45232

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1431070067
Permit Number: P0109691
Permit Type: Initial Installation
County: Hamilton

Certified Mail

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Cincinnati Enquirer. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification
SWOQA; Indiana; Kentucky



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: Sun Chemical Corporation (Sun Chemical) proposes to install a new process which will produce a blue pigment. They will be using existing, unpermitted equipment (previously deemed to be de minimis) and since the process will generate hydrochloric acid (HCl) emissions, a new caustic scrubber will be installed to control those emissions.
3. Facility Emissions and Attainment Status: Prior to this federally enforceable permit to install and operate (FEPTIO), the facility was considered a Non-Title V operating permit, true minor, facility for all criteria and hazardous air pollutant (HAP) pollutants. Emissions from the facility consist of particulate (PE)/particulate matter 10 microns in diameter or less (PM10)/ particulate matter 2.5 microns in diameter or less (PM2.5), volatile organic compound (VOC), and HAPs. Sun Chemical is located in Hamilton County, which is in attainment of all ambient air quality standards.
4. Source Emissions: Without restriction or controls, emissions of HCl from emissions unit P102, Reactor # 4, would exceed the major source emission threshold of levels of 10 tons per year (TPY) [emissions unit P102's uncontrolled potential to emit (PTE) is 89.1 TPY] for any single HAP, making the facility subject to Part 70, Title V operating permit regulation. In addition to HCl mist emissions, there will be VOC emissions and PE/PM10/PM2.5 emissions from product load-out. All emission limitations were established based on producing one batch per day of the product in order to comply with the Ohio EPA's Air Toxics Policy. The short term emission limits (pounds per batch) were established in accordance with the Best Available Technology (BAT) Emission Limit Format Table contained in "BAT Requirements for Permit Applications Filed On or After August 3, 2009" provided by OEPA. See below for emission totals.
5. With a caustic scrubber to control HCl emissions from emissions unit P102, the restricted PTE single HAP (HCl) will be 6.31 TPY, also rolling, 12-month, allowing the facility to avoid being subject to Ohio Administrative Code (OAC) rule 3745-31-28, Maximum Achievable Control Technology (MACT) determination, and Part 70, Title V operating permit requirements. The facility is also subject to the standard facility-wide HAPs synthetic minor restrictions of 9.9 TPY and 24.9 TPY as there are several other sources which may employ HAP-containing materials that would have to be incorporated into the facility-wide compliance records.
6. Conclusion: With the requirements through this FEPTIO, including the appropriate Applicable Emission Limitations, Operational Restrictions, and Recordkeeping/Reporting, the facility will be able to avoid being subject to OAC rule 3745-31-28, Maximum Achievable Control Technology (MACT) determination, and Part 70, Title V operating permit requirements.
7. Please provide additional notes or comments as necessary:

Aside from Title V implications, HCl emissions are further limited due to the Air Toxics Rule. The source could not pass the air toxics screening based on a 24 hour day. Therefore, an additional limit has been placed in the permit to limit HCl emissions to 34.6 pounds per day per ORC 3704.03(F)(4)(c).

8. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
PE/PM10/PM2.5/(as HCl mist)	6.31
PE/PM10/PM2.5 (Total including product load-out)	6.37
VOC	3.29

PUBLIC NOTICE
4/26/2012 Issuance of Draft Air Pollution Permit-To-Install and Operate

SUN CHEMICAL CORPORATION
4526 CHICKERING AVE,
Cincinnati, OH 45232
Hamilton County
FACILITY DESC.: Inorganic Dye and Pigment Manufacturing
PERMIT #: P0109691
PERMIT TYPE: Initial Installation
PERMIT DESC: Initial installation PTIO for Reactor Vessel #4

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Mike Kramer, Southwest Ohio Air Quality Agency, 250 William Howard Taft Rd., Cincinnati, OH 45219. Ph: (513)946-7777

Ohio

**Environmental
Protection Agency**

DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
SUN CHEMICAL CORPORATION**

Facility ID:	1431070067
Permit Number:	P0109691
Permit Type:	Initial Installation
Issued:	4/26/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install and Operate
for
SUN CHEMICAL CORPORATION

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Authorization

Facility ID: 1431070067
Application Number(s): A0044079
Permit Number: P0109691
Permit Description: Initial installation PTIO for Reactor Vessel #4
Permit Type: Initial Installation
Permit Fee: \$200.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 4/26/2012
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

SUN CHEMICAL CORPORATION
4526 CHICKERING AVE
Cincinnati, OH 45232

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0109691

Permit Description: Initial installation PTIO for Reactor Vessel #4

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

Emissions Unit ID:	P102
Company Equipment ID:	R-4
Superseded Permit Number:	
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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 Southwest Ohio Air Quality Agency 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 submitting¹ 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 emissions 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 being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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) None.
2. The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B010 (Gas/Oil fired boilers), P001 (Peacock Spray Dryer # 1), and P002 (Peacock Spray Dryer # 2), P020 (Mix Tank # 14), P041 (Mixer # 3), P042 (Mixer # 4), P044 (Mix Tank # 15), P046 (Flusher # 45), P047 (Flusher # 47), P048, (Flusher # 1), P049 (Flusher # 2), P050 (Flusher # 4), P052 (Flusher # 7), P053 (Flusher # 9), P054 (Flusher # 12), P055 (Flusher # 13), P056 (Flusher # 14), P057 (Flusher # 18), P058 (Flusher # 19), P059 (Flusher # 20), P060 (Flusher # 22), P061 (Flusher # 23), P062 (Flusher # 24), P063 (Flusher # 25), P064 (Flusher # 26), P065 (Flusher # 27), P066 (Flusher # 28), P067 (Flusher # 29), P068 (Flusher # 37), P069 (Flusher # 38), P080 (Attritor # 41), P081 (Attritor # 43), P082 (Attritor # 44), P089 (Pigment Spray Dryer # 1), P090 (Pigment Spray Dryer #2), P091 (Pigment Spray Dryer #3), P092 (Mix Tank 14A), P093 (Mix Tank A), P094 (Mix Tank B), P095 (Mix Tank C), P096 (Mix Tank E), P097 (Mix Tank G), P098 (Mix Tank H), P099 (Mix Tank J), P100 (Mix Tank K), P101 (Mix Tank P), P102 (Reactor Vessel # 4), T003 (#2 Fuel Oil Storage Tank), T005 (Acetic Acid Storage Tank), all de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 currently, and future to-be-installed air contaminant sources, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling 12-month summation.
3. The permittee shall collect and record the following information each month for all materials containing any hazardous air pollutant (HAP)¹ that are applied in any emissions unit listed in B.2 that applies HAP-containing materials in the facility, including emissions unit P102², where applicable:
 - a) The name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP;
 - b) The name/identification of each individual HAP contained in each material applied (and identified in [a] above) and the pound(s) of each HAP per gallon³ of each HAP-containing material applied;
 - c) The number of gallons of each coating, thinner, additive, cleanup material, and other material applied during the month;
 - d) For each individual HAP, the total emissions from all the materials employed, in ton(s), i.e., for each individual HAP, the summation of the products of [b] times [c] for all the materials applied during the month, divided by 2,000 pounds;

- e) The total combined HAP emissions from all the materials employed during the month, in ton(s), i.e., the summation of all the individual HAP emissions from [d] above plus the HAP emissions from emissions unit P102 during the month as calculated in C.1.d)(1);
- f) For each individual HAP, the total emissions during the rolling, 12-month period, i.e., the summation of the individual HAP emissions, as recorded in [d] above, for the present month plus the previous 11 months of operation, in ton(s); and
- g) The total combined HAP emissions during the rolling 12-month period, i.e., the summation of all HAP emissions, as recorded in [e] above, for the present month plus the previous 11 months of operation, in ton(s) plus the HAP emissions from emissions unit P102 during the same rolling, 12-month period.

¹ A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings and cleanup materials.

² HAP emissions from emissions unit P102 are recorded in C.1.d)(1).

³ Alternatively, HAP emissions may be calculated as a Weight Fraction of each HAP-containing material applied.

- 4. The permittee shall submit quarterly deviation (excursion) reports for any emissions unit that applies HAP-containing materials listed in B.2 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) All exceedances of the rolling, 12-month individual HAP emission limitation for each HAP for all the coatings, thinners, additives, and cleanup materials employed and/or any exceedance of the rolling, 12-month individual HAP emission limitation for each HAP specifically from emissions unit P012; and
 - (2) All exceedances of the rolling, 12-month total combined HAP emissions limitation for all the coatings, thinners, additives, and cleanup materials employed plus any HAP emissions from emissions unit P102.
 - 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 (the appropriate District Office or local air agency).

Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

C. Emissions Unit Terms and Conditions



1. P102, R-4

Operations, Property and/or Equipment Description:

Reactor Vessel #4

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. None.

(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)(1)f., b)(2)d., d)(5) – d)(8), e)(6)

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)	Particulate emissions (PE), emissions of particulate matter 10 microns and less in diameter (PM10), and emissions of particulate matter 2.5 microns and less in diameter (PM2.5), shall not exceed 34.89 pounds per batch and 6.37 tons per year (TPY). Volatile Organic Compound (VOC) emissions shall not exceed 18 pounds per batch and 3.29 tons per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(B). See b)(2)a.

b.	OAC rule 3745-31-05(A)(3)(b) (as effective 12/1/06)	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to Avoid Title V	PE/PM10/PM2.5 from this emissions unit consists of hydrochloric acid (HCl), as an acid mist, which is a Hazardous Air Pollutant (HAP). The emissions of HCl from this emissions unit shall not exceed 6.3 TPY, based upon a rolling, 12-month summation of the emissions.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
e.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 4.05 pounds per hour.
f.	ORC 3704.03(F)(4)(c)	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. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, PM10, PM2.5, and VOC emissions from this air contaminant source since the uncontrolled potential to emit for PE, PM10, PM2.5, and VOC is each less than 10 tons/year.
- c. The emissions from this emissions unit shall be vented to a wet scrubber at all times the emissions unit is in operation.

- d. In order to demonstrate compliance with the "Toxic Air Contaminant Statute", the Director has established, per ORC 3704.03(F)(4)(c), an emissions limitation for HCl, which shall not exceed 34.6 pound(s) per day. This daily allowable emissions rate was calculated by multiplying the daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration).
- c) Operational Restrictions
 - (1) None.
 - d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain monthly records of the following information:
 - a. the HCl emission rate for each month of operations; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the HCl emissions.
 - (2) Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative HCl emissions for each calendar month.
 - (3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range or limit for the pressure drop across the scrubber and the scrubber liquid flow rate and the liquid pH shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.
 - (4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in inches, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this/these emissions unit(s), including periods of startup and shutdown. The pH of the scrubber liquid shall be monitored on a semi-weekly basis. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable range or limit for the pressure drop across the scrubber, the scrubber liquid flow rate and the pH of the scrubber liquid shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- a. a description of the corrective action;
- b. the date the corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop, flow rate readings and the scrubber liquid pH immediately after the corrective action was implemented; and
- f. 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.

These range(s) and/or limit(s) for the pressure drop, liquid flow rate and scrubber liquid pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop, liquid flow rate or scrubber liquid pH based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of administrative modification.

- (5) The FEPTIO application for this/these emissions unit(s), P102, 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 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 was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, "X" = 17 hours per day and "Y" = 7 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 or "worst case" toxic contaminant(s):

Toxic Contaminant: HCl

TLV (mg/m3): 2.198

Maximum Hourly Emission Rate (lbs/hr): 2.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 72.55

MAGLC (ug/m3): 73.88

The permittee, having demonstrated that emissions of HCl, from emissions unit(s) P102, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and 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", ORC 3704.03(F), 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":
- 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) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
 - (2) 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. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber, the liquid flow rate or the scrubber liquid pH was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber; the probable cause of each deviation (excursion);
 - b. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - c. 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.

- (3) 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 (the appropriate District Office or local air agency).
- (4) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (5) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the wet scrubber during the 12-month reporting period for this/these emissions unit(s):
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber, the liquid flow rate or the scrubber liquid pH was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;
 - c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the pressure drop, liquid flow rate or the scrubber liquid pH into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (6) The permittee shall include in the annual Permit Evaluation Report (PER) any changes made to a parameter or value used in the dispersion model, that was used to maintain compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. 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.

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:

Particulate emissions (PE), emissions of particulate matter 10 microns and less in diameter, and emissions of particulate matter 2.5 microns and less in diameter (PM2.5) shall not exceed 34.89 pounds per batch and 6.37 TPY.

Applicable Compliance Method:

The applicable emission limitation was established based on information supplied by the permittee in Application A0044079 for FEPTIO P0109691:

Final product load-out emissions were determined by using the emission factor for urea from AP-42 chapter 8.2 and multiplying by the production rate.

HCl emissions were determined using confidential information supplied by the permittee in Application A0044079 for FEPTIO P0109691.

$346.2 \text{ lbsHCl/batch} \times 1.0 \text{ batch/day} \times (1-.90) + 0.29 \text{ pounds per batch PE, PM10, PM2.5} = 34.89 \text{ pounds per batch total PE, PM10, PM2.5}$

Annual emissions are then determined by multiplying the batch emission rate by the total number of days the emission unit operated during the calendar year then divide by 2000 lbs to get the TPY emission rate.

b. Emission Limitations:

The emissions of HCl from this emissions unit shall not exceed 6.3 TPY, based upon a rolling, 12-month summation of the emissions.

Applicable Compliance Method:

Compliance with the HCl emission limitations shall be demonstrated by the recordkeeping requirements in d)(1).

The applicable emission limitations were established based on confidential information supplied by the permittee in Application A0044079 for FEPTIO P0109691.

$346.2 \text{ lbsHCl/batch} \times 1.0 \text{ batch/day} \times (1-.90) = 34.6 \text{ pounds per batch HCl}$

Annual emissions are then determined by multiplying the batch emission rate by the total number of days the emission unit operated during the calendar year then divide by 2000 lbs to get the TPY emission rate.

c. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 18 pounds per batch and 3.29 tons per year.

Applicable Compliance Method:

The applicable emission limitations were established based on information supplied by the permittee in Application A0044079 for FEPTIO P0109691:

$18 \text{ lbs VOC/batch} \times 1.0 \text{ batches/day} = 18 \text{ pounds per batch VOC}$

Annual emissions are then determined by multiplying the batch emission rate by the total number of days the emission unit operated during the calendar year then divide by 2000 lbs to get the TPY emission rate.

d. Emission Limitation:

20% percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, except as specified by rule.

e. Emission Limitations:

Particulate emissions (PE) from this emissions unit shall not exceed 4.05 pounds per hour.

Applicable Compliance Method:

The applicable emission limitations were established based on confidential information supplied by the permittee in Application A0044079 for FEPTIO P0109691.

$346.2 \text{ lbs PE/batch} \times 1.0 \text{ batch/day} \times (1-.90) \times 1 \text{ batch/17 hours} = 2.04 \text{ pounds PE per hour}$

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit .

- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for HCl,
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 26 40 CFR Part 60, Appendix A, or

Method 26A 40 CFR Part 60, Appendix A

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- g) Miscellaneous Requirements
 - (1) None.