



Environmental
Protection Agency

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

1/18/2012

Teresa Turnbow
Patheon Pharmaceuticals Inc.
2110 EAST GALBRAITH RD
Cincinnati, OH 45237

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

Facility ID: 1431380503
Permit Number: P0109038
Permit Type: Renewal
County: Hamilton

Certified Mail

No	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)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final 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. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI 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
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: SWOAQA



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Patheon Pharmaceuticals Inc.**

Facility ID:	1431380503
Permit Number:	P0109038
Permit Type:	Renewal
Issued:	1/18/2012
Effective:	1/18/2012
Expiration:	3/10/2014



Division of Air Pollution Control
Permit-to-Install and Operate
for
Patheon Pharmaceuticals Inc.

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Authorization

Facility ID: 1431380503
Application Number(s): A0043034
Permit Number: P0109038
Permit Description: Renewal of PTIOs for P003 (48-inch tablet coating pan using aqueous and solvent coatings with cartridge filter and thermal oxidizer) and P048 (60-inch tablet coating pan using aqueous and solvent coatings with cartridge filter and thermal oxidizer)
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 1/18/2012
Effective Date: 1/18/2012
Expiration Date: 3/10/2014
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

Patheon Pharmaceuticals Inc.
2110 East Galbraith Rd
Cincinnati, OH 45237

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

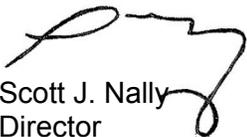
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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: P0109038
Permit Description: Renewal of PTIOs for P003 (48-inch tablet coating pan using aqueous and solvent coatings with cartridge filter and thermal oxidizer) and P048 (60-inch tablet coating pan using aqueous and solvent coatings with cartridge filter and thermal oxidizer)

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

Emissions Unit ID:	P003
Company Equipment ID:	TT-23
Superseded Permit Number:	14-05727
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P048
Company Equipment ID:	TT-30
Superseded Permit Number:	14-05727
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) 2., 3., 4. and 5.
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 B003 (72.6 MMBtu/hr Natural Gas / No. 2 Fuel Oil Fired Boiler), P002 (capsule production line), P003 (Tablet coating line), P004 (Tablet coating line), P005 (Tablet coating line), P006 (Tablet coating line) P007 (fluid bed dryer), P008 (dry products line), P010 (dry packaging), P014 (granulation processing), P044-P047 (drying ovens), P048 (Tablet coating line), P051 (Intermediate Scale Processing Suite for pharmaceutical products), any de minimis emissions units as defined in OAC rule 3745-15-05, and any registration status and/or permit exempt emissions units 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 emissions units B003 (72.6 MMBtu/hr Natural Gas / No. 2 Fuel Oil Fired Boiler), P002 (capsule production line), P003 (Tablet coating line), P004 (Tablet coating line), P005 (Tablet coating line), P006 (Tablet coating line) P007 (fluid bed dryer), P008 (dry products line), P010 (dry packaging), P014 (granulation processing), P044-P047 (drying ovens), P048 (Tablet coating line), P051 (Intermediate Scale Processing Suite for pharmaceutical products), and any de minimis defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units:
 - a) The name and identification number of each coating or solvent employed;
 - b) The individual Hazardous Air Pollutant (HAP)* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
 - c) The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
 - d) The number of pounds of each coating or solvent employed;
 - e) The name and identification of each cleanup material employed;
 - f) The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
 - g) The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
 - h) The number of gallons of each cleanup material employed;

- i) The total individual HAP emissions for each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- j) The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- k) The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l) The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.

- 4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in B.1.b)(1). If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).
- 5. Compliance with the HAP emission limitations shall be based on the record keeping requirements established 2.

C. Emissions Unit Terms and Conditions



1. P003, TT-23

Operations, Property and/or Equipment Description:

48-inch tablet coating pan (TT-23) using aqueous and solvent coatings with cartridge filter and thermal oxidizer.

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)(3)-(6).

(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)e., c)(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)	Organic Compound (OC) emissions from the process shall not exceed 1.94 pounds per hour. OC* emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined. *for purposes of non-attainment review for ozone, all volatile organic compound (VOC) emissions are considered to be OC. Particulate emissions (PE) from the process shall not exceed 0.53 pound per hour and 2.33 TPY.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.53 pound per hour and 2.33 TPY.</p> <p>Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.</p> <p>Emissions from the combustion of natural gas in the regenerative thermal oxidizer shall not exceed the following:</p> <p>Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 2.5 microns and less in diameter (PM2.5) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Sulfur Dioxide (SO2) emissions shall not exceed 0.001 pound per hour and 0.004 TPY.</p> <p>Nitrogen Oxides (NOx) emissions shall not exceed 0.16 pound per hour and 0.70 TPY.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 0.13 pound per hour and 0.59 TPY.</p> <p>Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a.
b.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-21-07(M)	The emission unit is exempt pursuant to OAC rule 3745-21-07(M)(3)(c).
e.	OAC rule 3745-31-05(D)	See Section B.2.

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by emissions limitations, the use of a particulate filter with a particulate emissions control efficiency of at least 95 percent and the use of a thermal oxidizer with an overall OC control efficiency of at least 98 percent.
- b. The permittee shall control organic compound emissions from this emissions unit by use of a thermal oxidizer with a minimum overall OC control efficiency of 98% by weight. This requirement shall apply whenever the permittee is using OC-containing materials.
- c. The hourly emissions limitations for PE, PM10, PM2.5, SO2, NOx, CO and OC and the annual PE, PM10, PM2.5, SO2, NOx, and CO emissions limits are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.

c) Operational Restrictions

- (1) The organic solvent usage rate shall not exceed 1,100,000 pounds per year, based on a rolling, 12-month summation for emissions units P003 and P048 combined. The organic solvent usage rate, in pounds, equates to the assumption that 100% of the all the organic solvent is emitted.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for emissions units P003 and P048:
 - a. the company identification of each coating/solvent and cleanup material employed in these emissions units;
 - b. the amount of OC materials employed, in pounds per month;

- c. the organic compound emissions, in tons per month;
 - d. the updated, rolling 12-month summation of the OC usage rate for emission unit P003 and P048, combined, in pounds. This shall include the information for the current month and the preceding eleven months; and
 - e. the updated, rolling 12-month summation of the OC emissions for emission unit P003 and P048, combined,, in tons. This shall include the information for the current month and the preceding eleven months.
- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. 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 Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the thermal oxidizer is required to demonstrate compliance with the VOC limitation contained in this permit:
- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit(s).
- (3) Whenever the monitored value for the average combustion temperature within the thermal oxidizer deviates from the range specified below, 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(s) the investigation was conducted;
- d. the names 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 operation of the control equipment within the acceptable value specified below, unless the permittee determines

that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended.

The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action, the date it was completed, the date and time the deviation ended;
- b. the total period of time (in minutes) during which there was a deviation;
- c. the average combustion temperature within the thermal oxidizer immediately after the corrective action; and
- d. the names of the personnel who performed the work.

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

The acceptable values for the average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall be maintained above 1450 degrees Fahrenheit or shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

These values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the values based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit. In addition, approved revisions to the values 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.

- (4) The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the cartridge filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the cartridge filter on weekly basis.

The pressure drop across the particulate filter (cartridge filter) while the emissions unit is in operation shall be maintained either within the range of 0.25 to 4 inches of water or that range which was established during the most recent emission test that demonstrated the emissions unit was in compliance.

These values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the values based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit.

In addition, approved revisions to the values 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.

- (5) The permit to install for this emission unit (P003) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN3 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s) for the emissions from P003, P005, P006, and P048, combined:

Pollutant: methanol
TLV (ug/m3): 262,086
Maximum Hourly Emission Rate (lbs/hr): 75.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,756
MAGLC (ug/m3): 6,240

Pollutant: isopropanol
TLV (ug/m3): 491,534
Maximum Hourly Emission Rate (lbs/hr): 103.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8194
MAGLC (ug/m3): 11,703

Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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. Combined organic solvent usage rate.
 - ii. Exceedance of HAPs emission limitation outlined in Section B.2.
 - iii. Minimum average thermal oxidizer combustion temperature.
 - iv. Deviations from acceptable pressure drop readings across the filter.
- 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).

- (2) 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.
- (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.

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 Limitations:**

Organic Compound (OC) emissions from the process shall not exceed 1.94 pounds per hour.

Organic Compound (OC) emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.

Applicable Compliance Method:

The hourly OC emissions rate shall be determined by multiplying the maximum coating material throughput (pounds OC per batch divided by the hours per batch) multiplied by the efficiency of the thermal oxidizer (1- 0.98), as provided in PTIO application A0043034 submitted on 11/16/2011.

The annual OC emissions shall be determined by multiplying the amount of OC material employed per month in emission unit P003 and P048 combined over the preceding 12 month period times one minus 0.98 and dividing by 2000 lbs/ton to obtain tons OC per year.

b. Emission Limitations:

Particulate emissions (PE), particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.53 pound per hour and 2.33 TPY.

Applicable Compliance Method:

PE, PM10 and PM2.5 emissions rates shall be determined by multiplying the total coating material throughput (pounds per batch divided by the hours per batch) by the percent solids in the coating (25%), times the solids transfer factor of the tablet coating (1-0.67), times the particulate not controlled by the 95% efficient filter (1-0.95), as provided in PTIO application A0043034 submitted on 11/16/2011.

The annual PE, PM10 and PM2.5 emission rates shall be determined by multiplying the hourly emissions by 8760 hours per year and divided by 2000 lbs/ton.

c. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a 6-minute average.

Applicable Compliance Method:

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

d. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

PE/PM10/PM2.5 emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (7.6 lb PM/MMft³). The emissions factor 7.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton. All PM10 and PM2.5 was assumed equal to the PE rate.

e. Emission Limitations:

Sulfur Dioxide (SO₂) emissions shall not exceed 0.001 pound per hour and 0.004

TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

SO₂ emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (0.6 lb SO₂/MMft³). The emissions factor 0.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

f. Emission Limitations:

Nitrogen Oxides (NO_x) emissions shall not exceed 0.16 pound per hour and 0.70 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

NO_x emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (100 lb NO_x/MMft³). The emissions factor 100 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

g. Emissions limitations:

0.13 lb per hour and 0.59 TPY CO from natural gas combustion in the regenerative thermal oxidizer

Applicable Compliance Method:

CO emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (84 lb CO/MMft³). The emissions factor 84 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

h. Emission Limitations:

Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

OC emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000)

times the emission factor (11 lb OC/MMft³). The emissions factor 11 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

(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 18 months after issuance of the permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emissions rate for OC and the 98% OC overall control efficiency for the thermal oxidizer.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 or Method 18 as per 40 CFRPart 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.



- g. 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.



2. P048, TT-30

Operations, Property and/or Equipment Description:

60-inch tablet coating pan using aqueous and solvent coatings w/ cartridge filter and thermal oxidizer - modification of PTI 14-05576, issued July 15, 2004

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)(3)-(6).

(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)e., c)(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.		<p>Organic Compound (OC) emissions from the process shall not exceed 3.03 pounds per hour.</p> <p>OC* emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.</p> <p>*for purposes of non-attainment review for ozone, all volatile organic compound (VOC) emissions are considered to be OC.</p> <p>Particulate emissions (PE) from the process shall not exceed 0.83 pound per hour and 3.65 TPY.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.83 pound per hour and 3.65 TPY.</p> <p>Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.</p> <p>Emissions from the combustion of natural gas in the regenerative thermal oxidizer shall not exceed the following:</p> <p>Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 2.5 microns and less in diameter (PM2.5) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Sulfur Dioxide (SO2) emissions shall not exceed 0.001 pound per hour and 0.004 TPY.</p> <p>Nitrogen Oxides (NOx) emissions shall not exceed 0.16 pound per hour and 0.70 TPY.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 0.13 pound per hour and 0.59 TPY.</p> <p>Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a.
b.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-21-07(M)	The emission unit is exempt pursuant to OAC rule 3745-21-07(M)(3)(c).
e.	OAC rule 3745-31-05(D)	See Section B.2.

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by emissions limitations, the use of a particulate filter with a particulate emissions control efficiency of at least 95 percent and the use of a thermal oxidizer with an overall OC control efficiency of at least 98 percent.
- b. The permittee shall control organic compound emissions from this emissions unit by use of a thermal oxidizer with a minimum overall OC control efficiency of 98% by weight. This requirement shall apply whenever the permittee is using OC-containing materials.
- c. The hourly emissions limitations for PE, PM10, PM2.5, SO2, NOx, CO and OC and the annual PE, PM10, PM2.5, SO2, NOx, and CO emissions limits are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.

c) Operational Restrictions

- (1) The organic solvent usage rate shall not exceed 1,100,000 pounds per year, based on a rolling, 12-month summation for emissions units P003 and P048 combined. The organic solvent usage rate, in pounds, equates to the assumption that 100% of the all the organic solvent is emitted.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for emissions units P003 and P048:
 - a. the company identification of each coating/solvent and cleanup material employed in these emissions units;
 - b. the amount of OC materials employed, in pounds per month;

- c. the organic compound emissions, in tons per month;
 - d. the updated, rolling 12-month summation of the OC usage rate for emission unit P003 and P048, combined, in pounds. This shall include the information for the current month and the preceding eleven months; and
 - e. the updated, rolling 12-month summation of the OC emissions for emission unit P003 and P048, combined,, in tons. This shall include the information for the current month and the preceding eleven months.
- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. 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 Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the thermal oxidizer is required to demonstrate compliance with the VOC limitation contained in this permit:
- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit(s).
- (3) Whenever the monitored value for the average combustion temperature within the thermal oxidizer deviates from the range specified below, 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(s) the investigation was conducted;
- d. the names 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 operation of the control equipment within the acceptable value specified below, unless the permittee determines

that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended.

The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action, the date it was completed, the date and time the deviation ended;
- b. the total period of time (in minutes) during which there was a deviation;
- c. the average combustion temperature within the thermal oxidizer immediately after the corrective action; and
- d. the names of the personnel who performed the work.

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

The acceptable values for the average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall be maintained above 1450 degrees Fahrenheit or shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

These values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the values based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit. In addition, approved revisions to the values 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.

- (4) The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the cartridge filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the cartridge filter on weekly basis.

The pressure drop across the particulate filter (cartridge filter) while the emissions unit is in operation shall be maintained either within the range of 0.25 to 4 inches of water or that range which was established during the most recent emission test that demonstrated the emissions unit was in compliance.

These values are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the values based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit.

In addition, approved revisions to the values 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.

- (5) The permit to install for this emission unit (P048) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN3 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s) for the emissions from P003, P005, P006, and P048, combined:

Pollutant: methanol
TLV (ug/m3): 262,086
Maximum Hourly Emission Rate (lbs/hr): 75.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,756
MAGLC (ug/m3): 6,240

Pollutant: isopropanol
TLV (ug/m3): 491,534
Maximum Hourly Emission Rate (lbs/hr): 103.6
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8194
MAGLC (ug/m3): 11,703

Physical changes to or in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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. Combined organic solvent usage rate.
 - ii. Exceedance of HAPs emission limitation outlined in Section B.2.
 - iii. Minimum average thermal oxidizer combustion temperature.
 - iv. Deviations from acceptable pressure drop readings across the filter.
- 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).

- (2) 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.
- (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..

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 Limitations:**

Organic Compound (OC) emissions from the process shall not exceed 3.03 pounds per hour.

Organic Compound (OC) emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.

Applicable Compliance Method:

The hourly OC emissions rate shall be determined by multiplying the maximum coating material throughput (pounds OC per batch divided by the hours per batch) multiplied by the efficiency of the thermal oxidizer (1- 0.98), as provided in PTIO application A0043034 submitted on 11/16/2011.

The annual OC emissions shall be determined by multiplying the amount of OC material employed per month in emission unit P003 and P048 combined over the preceding 12 month period times one minus 0.98 and dividing by 2000 lbs/ton to obtain tons OC per year.

b. Emission Limitations:

Particulate emissions (PE), particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.83 pound per hour and 3.65 TPY.

Applicable Compliance Method:

PE, PM10 and PM2.5 emissions rates shall be determined by multiplying the total coating material throughput (pounds per batch divided by the hours per batch) by the percent solids in the coating (25%), times the solids transfer factor of the tablet coating (1-0.67), times the particulate not controlled by the 95% efficient filter (1- 0.95), as provided in PTIO application A0043034 submitted on 11/16/2011.

The annual PE, PM10 and PM2.5 emission rates shall be determined by multiplying the hourly emissions by 8760 hours per year and divided by 2000 lbs/ton.

c. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a 6-minute average.

Applicable Compliance Method:

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

d. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

PE/PM10/PM2.5 emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (7.6 lb PM/MMft³). The emissions factor 7.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton. All PM10 and PM2.5 was assumed equal to the PE rate.

e. Emission Limitations:

Sulfur Dioxide (SO₂) emissions shall not exceed 0.001 pound per hour and 0.004

TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

SO₂ emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (0.6 lb SO₂/MMft³). The emissions factor 0.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

f. Emission Limitations:

Nitrogen Oxides (NO_x) emissions shall not exceed 0.16 pound per hour and 0.70 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

NO_x emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (100 lb NO_x/MMft³). The emissions factor 100 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

g. Emissions limitations:

0.13 lb per hour and 0.59 TPY CO from natural gas combustion in the regenerative thermal oxidizer

Applicable Compliance Method:

CO emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (84 lb CO/MMft³). The emissions factor 84 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

h. Emission Limitations:

Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

OC emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000)

times the emission factor (11 lb OC/MMft³). The emissions factor 11 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

(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 18 months after issuance of the permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emissions rate for OC and the 98% OC overall control efficiency for the thermal oxidizer.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 or Method 18 as per 40 CFRPart 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.



- g. 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.