



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

10/9/2015

Richard Fisher
 Sherwin-Williams Company
 145 CALDWELL DRIVE
 Cincinnati, OH 45216

Certified Mail

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1431431877
 Permit Number: P0118888
 Permit Type: Renewal
 County: Hamilton

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: SWOQA



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Sherwin-Williams Company**

Facility ID:	1431431877
Permit Number:	P0118888
Permit Type:	Renewal
Issued:	10/9/2015
Effective:	10/9/2015
Expiration:	6/10/2019



Division of Air Pollution Control
Permit-to-Install and Operate
for
Sherwin-Williams Company

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit?	4
3. What records must I keep under this permit?	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application?	4
6. What happens to this permit if my project is delayed or I do not install or modify my source?	5
7. What reports must I submit under this permit?	5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	7
15. What happens if a portion of this permit is determined to be invalid?	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions	13
1. P030, 700 gallon reactor	14
2. P031, 300 gallon reactor	21
3. P032, 2500 gallon reactor	28



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

Authorization

Facility ID: 1431431877
Application Number(s): A0053288
Permit Number: P0118888
Permit Description: PTIO renewal for one 700-gallon reactor (P030), one 300-gallon reactor (P031) and one 2500-gallon reactor (P032).
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 10/9/2015
Effective Date: 10/9/2015
Expiration Date: 6/10/2019
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Sherwin-Williams Company
145 CALDWELL DRIVE
Cincinnati, OH 45216

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

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

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


Craig W. Butler
Director



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

Authorization (continued)

Permit Number: P0118888

Permit Description: PTIO renewal for one 700-gallon reactor (P030), one 300-gallon reactor (P031) and one 2500-gallon reactor (P032).

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

Emissions Unit ID:	P030
Company Equipment ID:	700 gallon reactor
Superseded Permit Number:	P0108995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P031
Company Equipment ID:	300 gallon reactor
Superseded Permit Number:	P0108995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P032
Company Equipment ID:	2500 gallon reactor
Superseded Permit Number:	P0108995
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

A. Standard Terms and Conditions

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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

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

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

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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

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 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 P006 (Shar Mixer), P008 (Hockmeyer Mixer 2), P017 (Hardener Tank), P021 (Tinting Area), P026 (Schold Mixer1), P027 (Schold Mixer 2), P028 (Myers Mixer), P029 (1,200 gallon epoxy clear base mixer), P030 (700 gallon reactor), P031 (300 gallon reactor), P032 (2,500 gallon reactor), P033 (Generac Generator), P034 (150 Gallon Hockmeyer Mixer), P035 (300 Gallon Hockmeyer Mixer), P036 (500 Gallon Schold Mixer), P037 (250 Gallon Hockmeyer Mixer), P038 (150 Gallon Hockmeyer Mixer), P039 (250 Gallon Hockmeyer Mixer), P040 (Fixed Mixing Tank 104), P041 (2,000 Gallon Mixing Tank), P042 (1,000 Gallon Mixing Tank), T001 (6,134 gallon storage tank #1), T002 (5,086 gallon storage tank #2), T003 (5,086 gallon storage tank #3), T004 (6,000 gallon storage tank #4), T005 (6,000 gallon storage tank #5) and T006 (6,134 gallon storage tank #6), including any de minimus air contaminant sources, as defined in OAC rule 3745-15-05, and any permanent exemption air contaminant sources installed subsequent to the issuance of this permit 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 the emissions units identified in Section B.2.:
 - a) The name and identification number of each HAP containing material employed;
 - b) The individual Hazardous Air Pollutant (HAP)* content for each HAP of each HAP containing material, in pounds of individual HAP per gallon of HAP containing material, as applied;
 - c) The total combined HAP content of each HAP containing material in pounds of combined HAPs per gallon of HAP containing material, as applied [sum all the individual HAP contents from (B.3.b)];
 - d) The number of gallons of each HAP containing material employed;
 - e) The name and identification of each HAP containing cleanup material employed;
 - f) The individual HAP content for each HAP of each HAP containing cleanup material, in pounds of individual HAP per gallon of HAP containing cleanup material, as applied;

- g) The total combined HAP content of each HAP containing cleanup material, in pounds of combined HAPs per gallon of HAP containing cleanup material, as applied [sum all the individual HAP contents from B.3.b)];
- h) The number of gallons of each HAP containing cleanup material employed [the total number of gallons of each HAP containing cleanup material employed less the number of gallons of each HAP containing cleanup material collected for reuse and disposal];
- i) The total individual HAP emissions for each HAP from all HAP containing material and HAP containing cleanup materials employed, in pounds or tons per month [for each HAP the sum of B.3.b) times B.3.d) times the emissions factor or overall control efficiency** (if applicable) for each HAP containing material plus the sum of B.3.f.) times B.3.h) for each HAP containing cleanup material plus individual HAP emissions from any de minimis 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 at the facility];
- j) The total combined HAP emissions from all HAP containing materials and HAP containing cleanup materials employed, in pounds or tons per month [the sum of B.3.c) times B.3.d) times the emissions factor or overall control efficiency** (if applicable) for each coating plus the sum of B.3.g) times B.3.h) for each HAP containing cleanup material plus combined HAP emissions from any de minimis 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 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 the Southwest Ohio Air Quality Agency. This information does not have to be kept on an individual emissions unit basis.

**Overall control efficiency shall be from the most recent performance test that demonstrated that the emissions unit was in compliance.

- 4. The permittee shall notify the Southwest Ohio Air Quality Agency of any exceedance of the HAP emission limitations outlined in Section B.2. 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 cited in Section B.2. shall be demonstrated by the recordkeeping in Section B.3.

6. The total volatile organic compounds (VOC) input from emissions units P006 (Shar Mixer), P008 (Hockmeyer Mixer 2), P017 (Hardener Tank), P021 (Tinting Area), P026 (Schold Mixer1), P027 (Schold Mixer 2), P028 (Myers Mixer), P029 (1,200 gallon epoxy clear base mixer), P030 (700 gallon reactor), P031 (300 gallon reactor), P032 (2,500 gallon reactor), P033 (Generac Generator), P034 (150 Gallon Hockmeyer Mixer), P035 (300 Gallon Hockmeyer Mixer), P036 (500 Gallon Schold Mixer), P037 (250 Gallon Hockmeyer Mixer), P038 (150 Gallon Hockmeyer Mixer), P039 (250 Gallon Hockmeyer Mixer), P040 (Fixed Mixing Tank 104), P041 (2,000 Gallon Mixing Tank), P042 (1,000 Gallon Mixing Tank), T001 (6,134 gallon storage tank #1), T002 (5,086 gallon storage tank #2), T003 (5,086 gallon storage tank #3), T004 (6,000 gallon storage tank #4), T005 (6,000 gallon storage tank #5) and T006 (6,134 gallon storage tank #6), including any de minimus air contaminant sources, as defined in OAC rule 3745-15-05, and any permanent exemption air contaminant sources installed subsequent to the issuance of this permit shall not exceed 100 TPY based on a rolling, 12-month summation.

The VOC input of material employed shall be assumed to be 100 percent of the VOC content of the material employed, and, as such, is equivalent to the VOC emission rate.

The identified emissions units above are existing emissions units and the company has existing records to verify this limitation and therefore does not need to be limited during the first year operation on a monthly basis. Any subsequent air contaminant sources installed subsequent to the issuance of this permit, the company will modify the above recordkeeping to include those installed sources such that the company's records will continued to show compliance with the above limitation.

7. The permittee shall collect and record the following information for each month for the emissions units identified in Section B.6. above:
- a) the company identification for each VOC containing liquid organic material employed;
 - b) the amount of each VOC containing liquid organic material employed, in pounds per batch;
 - c) the total number of batches;
 - d) the amount of each VOC containing liquid organic material employed, in pounds per gallon in the above listed tanks;
 - e) the total number of gallons in the above listed tanks;
 - f) total VOC emissions rate in pounds $[B.7.b) \text{ times } B.7.c)] + [B.7.d) \text{ times } B.7.e)]$; and
 - g) the updated rolling, 12-month summation of VOC emissions, in pounds or tons [summing of B.7.f)]. This shall include the information for the current month and the preceding 11 months.
8. The permittee shall submit quarterly deviation (excursion) reports that identify:
- a) all deviations (excursions) of the VOC input limitation in Section B.6. have been detected by the monitoring, record keeping and/or testing requirements in this permit;
 - 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



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

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).



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

C. Emissions Unit Terms and Conditions

1. P030, 700 gallon reactor

Operations, Property and/or Equipment Description:

700 gallon reactor

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)(1).

(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)b.

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)	<p>Organic compound (OC) emissions from the reactor shall not exceed 57.6 pounds per day and 10.5 tons per year.</p> <p>Particulate emissions* (PE) from the reactor shall not exceed 5.9 pounds per day and 1.08 tons per year.</p> <p>*PE = Particulate Matter 10 microns in diameter and less (PM10).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1), 3745-17-08(B) and 3745-31-05(D).</p> <p>See b)(2)a. and b)(2)b.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D)	See Sections B.2. thru B.8.
c.	OAC rule 3745-17-07(B)(1)	See b)(2)c.
d.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions by the use of a cover and dust collector.
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	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).

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation and use of covers and a fabric filter.
- b. Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- c. Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.
- d. The daily PM/PM10 emissions limitations outlined in b)(1) are based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limitations.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permit to install for this emissions unit (P030) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour

maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the “worst case” pollutant(s):

Pollutant: xylene

TLV (ug/m3): 434,000

Maximum Hourly Emission Rate (lbs/hr): 1.53

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,167

MAGLC (ug/m3): 10,333

Physical changes to or in the method of operation of the emissions unit after it's 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, 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.”

- d. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - e. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - f. 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.
- (2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (3) The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- e) Reporting Requirements
- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required

documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - b. all weeks during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
 - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

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. Emissions Limitation:

Organic compound (OC) emissions from the reactor shall not exceed 57.6 pounds per day and 10.5 tons per year.

Applicable Compliance Method:

The daily OC emission rate is based on the emissions unit's potential to emit (PTE). The PTE for OCs is achieved by manufacturing polyurethane. The PTE was calculated by the following equations:

$(3840 \text{ pounds of solvent employed per day} \times 0.015 \text{ pounds of solvent emitted per pound of solvent employed}) = 57.6 \text{ pounds of OC per day}$

$(57.6 \text{ pounds of OC per day} \times 365 \text{ days per year} \times 1 \text{ ton}/2000 \text{ lbs}) = 10.5 \text{ TPY}$

b. Emissions Limitation:

Particulate emissions (PE) from the reactor shall not exceed 5.9 pounds per day and 1.08 tons per year.

Applicable Compliance Method:

The daily PE emission rate is based on the emissions unit's potential to emit (PTE). The PTE for PE is achieved by manufacturing epoxy. The PTE was calculated by adding fugitive to stack PE using the following equations:

$(9850 \text{ pounds of dry material per day} \times 0.01 \text{ pounds of PE entrained per pound of dry material} \times 0.05 \text{ pound of fugitive PE per pound of PE entrained}) = 4.925 \text{ pounds of fugitive PE per day}$

$[9850 \text{ pounds of dry material per day} \times 0.01 \text{ pounds of PE entrained per pound of dry material} \times 0.95 \text{ pound of PE captured per pound of PE entrained} \times (1 - 0.99 \text{ control efficiency of fabric filter})] = 0.936 \text{ pound of stack PE per day}$

$(4.925 \text{ pounds of fugitive PE per day} + 0.936 \text{ pound of stack PE per day}) = 5.9 \text{ pounds of PE per day}$

$(5.9 \text{ pounds of PE per day} \times 365 \text{ days per year} \times 1 \text{ ton}/2000 \text{ lbs}) = 1.08 \text{ tons of PE per year}$

c. Emissions Limitation:

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

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

d. Emissions Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(3).



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

g) Miscellaneous Requirements

None.

2. P031, 300 gallon reactor

Operations, Property and/or Equipment Description:

300 gallon reactor

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)(1).

(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)b.

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)	<p>Organic compound (OC) emissions from the reactor shall not exceed 24.0 pounds per day and 4.38 tons per year.</p> <p>Particulate emissions* (PE) from the reactor shall not exceed 2.5 pounds per day and 0.46 ton per year.</p> <p>*PE = Particulate Matter 10 microns in diameter and less (PM10)</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1), 3745-17-08(B) and 3745-31-05(D).</p> <p>See b)(2)a. and b)(2)b.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D)	See Sections B.2. thru B.8.
c.	OAC rule 3745-17-07(B)(1)	See b)(2)c.
d.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions by the use of a cover and dust collector.
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	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).

(1) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation and use of covers and a fabric filter.
- b. Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- c. Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
- d. The daily PM/PM10 emissions limitations outlined in b)(1) are based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limitations.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permit to install for this emissions unit (P031) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour

maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the “worst case” pollutant(s):

Pollutant: xylene

TLV (ug/m3): 434,000

Maximum Hourly Emission Rate (lbs/hr): 1.53

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,167

MAGLC (ug/m3): 10,333

Physical changes to or in the method of operation of the emissions unit after it's 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, 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.”

- d. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - e. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - f. 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.
- (2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (3) The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- e) Reporting Requirements
- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required

documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(2) above:
 - a. all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - b. all weeks during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
 - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

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. Emissions Limitation:

Organic compound (OC) emissions from the reactor shall not exceed 24.0 pounds per day and 4.38 tons per year.

Applicable Compliance Method:

The daily OC emission rate is based on the emissions unit's potential to emit (PTE). The PTE for OCs is achieved by manufacturing polyurethane. The PTE was calculated by the following equations:

(1600 pounds of solvent employed per day x 0.015 pounds of solvent emitted per pound of solvent employed) = 24.0 pounds of OC per day

$(24.0 \text{ pounds of OC per day} \times 365 \text{ days per year} \times 1 \text{ ton}/2000 \text{ lbs}) = 4.38 \text{ TPY OC}$

b. Emissions Limitation:

Particulate emissions (PE) from the reactor shall not exceed 2.5 pounds per day and 0.46 ton per year.

Applicable Compliance Method:

The daily PE emission rate is based on the emissions unit's potential to emit (PTE). The PTE for PE is achieved by manufacturing epoxy. The PTE was calculated by adding fugitive to stack PE using the following equations:

$(4200 \text{ pounds of dry material per day} \times 0.01 \text{ pounds of PE entrained per pound of dry material} \times 0.05 \text{ pound of fugitive PE per pound of PE entrained}) = 2.1 \text{ pounds of fugitive PE per day}$

$[4200 \text{ pounds of dry material per day} \times 0.01 \text{ pounds of PE entrained per pound of dry material} \times 0.95 \text{ pound of PE captured per pound of PE entrained} \times (1 - 0.99 \text{ control efficiency of fabric filter})] = 0.399 \text{ pound of stack PE per day}$

$(2.1 \text{ pounds of fugitive PE per day} + 0.399 \text{ pound of stack PE per day}) = 2.499 \text{ pounds of PE per day}$

$(2.499 \text{ pounds of PE per day} \times 365 \text{ days per year} \times 1 \text{ ton}/2000 \text{ lbs}) = 0.46 \text{ TPY PE}$

c. Emissions Limitation:

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

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

d. Emissions Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(3).



Final Permit-to-Install and Operate
Sherwin-Williams Company
Permit Number: P0118888
Facility ID: 1431431877
Effective Date: 10/9/2015

- g) Miscellaneous Requirements
 - (1) None.

3. P032, 2500 gallon reactor

Operations, Property and/or Equipment Description:

2,500 gallon reactor

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).

(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)b.

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 reactor shall not exceed 108.48 pounds per day and 19.8 tons per year. Particulate emissions* (PE) from the reactor shall not exceed 20.8 pounds per day and 3.8 tons per year. *PE = Particulate Matter 10 microns in diameter and less (PM10) The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1), 3745-17-08(B) and 3745-31-05(D). See b)(2)a., b)(2)b., and c)(1).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D)	See Sections B.2. thru B.8.
c.	OAC rule 3745-17-07(B)(1)	See b)(2)c.
d.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions by the use of a cover and dust collector.
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	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).

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation and use of covers and a fabric filter.
- b. Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- c. Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
- d. The daily PM/PM10 emissions limitations outlined in b)(1) are based upon the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limitations.

c) Operational Restrictions

- (1) The maximum daily production rate of polyurethane in this emissions unit shall not exceed 2,500 gallons per day.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information for this emissions unit on a daily basis:
 - a. The name and identification of each batch of coating produced.

- b. The OC content of each batch of coating, in pounds per gallon.
- c. The total amount of all organic materials used in each batch, in pounds.
- d. The total combined amount of all organic material used during the day for all batches, in pounds.
- e. The total combined monthly OC emissions, in tons per month. This calculation shall be based on the following equation:

The summation of $[(d) \times 1.5 \text{ percent}] / 2000$ for each liquid organic material used in the formulation of coatings.

These records shall be summarized at the end of each calendar year.

- (2) The permittee shall maintain annual records of the OC emissions from this emissions source. These records shall be prepared by January 30 of each year and cover the previous calendar year.
- (3) The permit to install for this emissions unit (P032) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: xylene

TLV (ug/m3): 434,000

Maximum Hourly Emission Rate (lbs/hr): 1.53

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,167

MAGLC (ug/m3): 10,333

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, 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:"

- d. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - e. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - f. 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.
- (4) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and

- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (5) The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(4) above:
 - a. all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit;



- b. all weeks during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

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. Emissions Limitation:

Organic compound (OC) emissions from the reactor shall not exceed 108.48 pounds per day and 19.8 tons per year.

Applicable Compliance Method:

The daily OC emission rate is based on the emissions unit's potential to emit (PTE). The PTE for OCs is achieved by manufacturing polyurethane. The PTE was calculated by the following equations:

$(7232 \text{ pounds of solvent employed per day} \times 0.015 \text{ pounds of solvent emitted per pound of solvent employed}) = 108.48 \text{ pounds of OC per day}$

$(108.48 \text{ pounds of OC per day} \times 365 \text{ days per year} \times 1 \text{ ton}/2000 \text{ lbs}) = 19.79 \text{ TPY OC}$

Compliance with the annual organic compound emission limitation shall be based upon the record keeping requirements specified in d)(1) and d)(2).

b. Emissions Limitation:

Particulate emissions (PE) from the reactor shall not exceed 20.8 pounds per day and 3.8 tons per year.

Applicable Compliance Method:

The daily PE emission rate is based on the emissions unit's potential to emit (PTE). The PTE for PE is achieved by manufacturing epoxy. The PTE was calculated by adding fugitive to stack PE using the following equations:

$(34960 \text{ pounds of dry material per day} \times 0.01 \text{ pounds of PE entrained per pound of dry material} \times 0.05 \text{ pound of fugitive PE per pound of PE entrained}) = 17.48 \text{ pounds of fugitive PE per day}$

$[34960 \text{ pounds of dry material per day} \times 0.01 \text{ pounds of PE entrained per pound of dry material} \times 0.95 \text{ pound of PE captured per pound of PE entrained} \times (1 - 0.99 \text{ control efficiency of fabric filter})] = 3.32 \text{ pounds of stack PE per day}$



$(17.48 \text{ pounds of fugitive PE per day} + 3.32 \text{ pounds of stack PE per day}) = 20.8 \text{ pounds of PE per day}$

$(20.8 \text{ pounds of PE per day} \times 365 \text{ days per year} \times 1 \text{ ton}/2000 \text{ lbs}) = 3.79 \text{ tons of PE per year}$

c. Emissions Limitation:

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

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

d. Emissions Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.

Applicable Compliance Method:

e. If required, compliance shall be shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(3).

f. Usage Limitation:

The maximum daily production rate of polyurethane in this emissions unit shall not exceed 2,500 gallons per day.

Applicable Compliance Method:

Compliance with the usage limitation specified in c)(1) shall be demonstrated by the record keeping requirements specified in d)(1).

g) Miscellaneous Requirements

(1) None.