



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

9/10/2013

Mr. Andrew Shimko  
Seaman Corporation  
1000 Venture Blvd.  
Wooster, OH 44691

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0285030351  
Permit Number: P0114362  
Permit Type: Renewal  
County: Wayne

Certified Mail

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

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](http://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](http://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](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Seaman Corporation**

Facility ID:	0285030351
Permit Number:	P0114362
Permit Type:	Renewal
Issued:	9/10/2013
Effective:	9/10/2013
Expiration:	9/10/2018





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Seaman Corporation

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**Final Permit-to-Install and Operate**  
 Seaman Corporation  
**Permit Number:** P0114362  
**Facility ID:** 0285030351  
**Effective Date:** 9/10/2013

## Authorization

Facility ID: 0285030351  
 Application Number(s): A0047280  
 Permit Number: P0114362  
 Permit Description: FEPTIO to transition from Title V permitting including administrative changes to permit terms and conditions.  
 Permit Type: Renewal  
 Permit Fee: \$0.00  
 Issue Date: 9/10/2013  
 Effective Date: 9/10/2013  
 Expiration Date: 9/10/2018  
 Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Seaman Corporation  
 1000 Venture Blvd.  
 Wooster, OH 44691

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
 Scott J. Nally  
 Director



## Authorization (continued)

Permit Number: P0114362

Permit Description: FEPTIO to transition from Title V permitting including administrative changes to permit terms and conditions.

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

<b>Emissions Unit ID:</b>	<b>K002</b>
Company Equipment ID:	Coating Line 4
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K003</b>
Company Equipment ID:	Coating Line 5
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K004</b>
Company Equipment ID:	Laminator Line 8
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K006</b>
Company Equipment ID:	Coating Line 14
Superseded Permit Number:	P0109814
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	Top Finish mixer
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable

**Group Name: Group 1 - Dry Blend Mixers**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	New DB mixing
Superseded Permit Number:	02-16176
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	Old DB mixing
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable

**Group Name: Group 2 - Plastisol Mixers**

<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	Plastisol mixer
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	Plastisol mixer
Superseded Permit Number:	02-21973
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**

Seaman Corporation

**Permit Number:** P0114362

**Facility ID:** 0285030351

**Effective Date:** 9/10/2013

**Group Name: Group 3 - Adhesive Mixers**

<b>Emissions Unit ID:</b>	<b>P006</b>
Company Equipment ID:	Adhesive mixer
Superseded Permit Number:	02-21973
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P007</b>
Company Equipment ID:	Adhesive mixer
Superseded Permit Number:	02-21973
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P008</b>
Company Equipment ID:	Adhesive mixer
Superseded Permit Number:	02-21973
General Permit Category andType:	Not Applicable



**Final Permit-to-Install and Operate**  
Seaman Corporation  
**Permit Number:** P0114362  
**Facility ID:** 0285030351  
**Effective Date:** 9/10/2013

## **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 Ohio EPA DAPC, Northeast District Office 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<sup>1</sup> 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.

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<sup>1</sup>Permittees 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.



**Final Permit-to-Install and Operate**  
Seaman Corporation  
**Permit Number:** P0114362  
**Facility ID:** 0285030351  
**Effective Date:** 9/10/2013

## **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. Emission Limitations:
  - a) Pursuant to OAC rule 3745-31-05(D), the combined emissions from all coatings and cleanup materials at the facility shall not exceed:
    - (1) 99 tons/year, based upon a rolling, 12-month summation, for volatile organic compounds (VOC);
    - (2) 9.9 tons/year, based upon a rolling, 12-month summation for any individual hazardous air pollutant (HAP); and
    - (3) 24.9 tons/year, based upon a rolling, 12-month summation for total combined HAPs.
  - b) The permittee shall maintain monthly facility-wide records of the following information:
    - (1) The permittee shall collect the following information for all cleanup materials applied:
      - a. the name and identification number of each cleanup material employed;
      - b. the VOC content of each cleanup material, in lbs VOC/lb coating;
      - c. the amount of cleanup material used less the amount recovered, in lbs; and
      - d. the total VOC emissions from all cleanup material, in lbs/month.
    - (2) The total VOC emissions during the rolling, 12-month period, calculated by adding emissions for the present month to the preceding 11 months of operation for each emissions unit, in tons. Monthly emissions shall be calculated in accordance with Section C of this permit.
    - (3) The permittee shall collect and record the following information for all materials containing any HAP<sup>1</sup> :
      - a. the name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP;



- b. the name/identification of each individual HAP contained in each material applied (and identified in "a" above) and the pound(s) of each HAP per pound of each HAP-containing material applied;
- c. the number of pounds of each coating, thinner, additive, cleanup material, and other material applied during the month;
- d. for each individual HAP, the total uncontrolled emissions from the controlled coating operations for the month, in ton(s), i.e., for each individual HAP, the summation of the products of "b" times "c" for all the coatings, thinners, additives, and other materials (not including clean-up materials) applied during the month, where the emissions are captured and introduced to the control system, divided by 2,000 pounds;
- e. for each individual HAP, the total uncontrolled emissions from the cleanup materials employed, in ton(s), i.e., for each individual HAP, the summation of the products of "b" times "c" for all the clean-up materials applied during the month, divided by 2,000 pounds;
- f. the total uncontrolled combined HAPs emissions from the controlled operations for all the coatings, thinners, additives, and other materials (not including cleanup materials) applied during the month, in ton(s), i.e., the summation of all the individual HAPs emissions from "d" above;
- g. the total uncontrolled combined HAPs emissions from all the cleanup materials applied during the month, in ton(s), i.e., the summation of all the individual HAPs emissions from "e" above;
- h. for each individual HAP, the sum of (i) the calculated, controlled emission rate from all the coatings, thinners, additives, and other materials (not including cleanup materials) employed during the month, in ton(s), i.e., the total uncontrolled individual HAP emission rate calculated in "d" above, multiplied by 1 minus the overall control efficiency for the control equipment, as determined during the most recent emissions test that demonstrated the emissions unit was in compliance, and (ii) the uncontrolled individual HAP emissions from the cleanup materials employed during the month, as calculated in "e" above;
- i. for combined HAPs, the calculated total combined HAPs emission rate for all the materials employed in the controlled coating and uncontrolled cleanup operations during the month, i.e., the summation of the total emissions of each of the individual HAP emission rates calculated in "h" above;
- j. for each individual HAP, the calculated total emissions during the rolling, 12-month period, i.e., the summation of the individual HAP emissions, as recorded in "h" above, for the present month plus the previous 11 months of operation, in ton(s); and
- k. the calculated total combined HAP emissions during the rolling, 12-month period, i.e., the summation of all HAP emissions, as recorded in "i" above, for the present month plus the previous 11 months of operation, in ton(s).



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

- c) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the rolling, 12-month VOC and/or HAP emissions limitations for this facility.

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 Northeast District Office.

- d) Compliance with the VOC and HAP emission limitations shall be demonstrated by the record keeping and reporting in sections b) and c) above.



**Final Permit-to-Install and Operate**  
Seaman Corporation  
**Permit Number:** P0114362  
**Facility ID:** 0285030351  
**Effective Date:** 9/10/2013

## **C. Emissions Unit Terms and Conditions**



**1. K002, Coating Line 4**

**Operations, Property and/or Equipment Description:**

Line 4. Knife-over-roll coating of continuous web of uncoated or vinyl coated fabric with PVC plastisol or adhesive and/or rotogravure coating with acrylic top finish. Ovens and coating heads are vented to the RTO.

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)(8), d)(9), d)(10), d)(11) and e)(3)

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

a. None.

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)	The volatile organic compound (VOC) content of coatings, excluding water and exempt solvents, shall not exceed the following:  0.03 lb/lb coating (0.303 lb/gal) for PVC adhesives and plastisols; and  0.9 lb/lb coating, (6.57 lbs/gal) for top finish.  VOC emissions shall not exceed 7.6 lbs/hr.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.  See b)(2).
c.	OAC rule 3745-21-09(G)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-09(H)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
e.	ORC 3704.03(F)(4)	See d)(8), d)(9), d)(10), d)(11) and e)(3).
f.	40 CFR Part 60, Subpart FFF	Exempt. Installed prior to 1983.

(2) Additional Terms and Conditions

- a. All of the VOC emissions from this emissions unit shall be vented to the thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation. The oxidizer shall have a VOC destruction efficiency of at least 97%, by weight.
- b. The permanent total enclosure (PTE) surrounding the coating heads shall capture, contain and direct all VOC emissions to the oxidizer.
- c. The permittee has the option to perform an additional demonstration to show that each PTE cannot be compromised under normal plant conditions when the emissions unit is in operation in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised under normal plant conditions when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restrictions, monitoring, record keeping and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration to show that the PTE cannot be compromised or if the additional demonstration indicates that the PTE can be compromised, the permittee shall comply with the differential pressure operational restriction, monitoring, record keeping and reporting requirements, specified in sections b)(2)d, b)(2)e, c)(1),d)(5), d)(6), d)(7) and e)(1)e, to ensure the ongoing integrity of the PTE.

- d. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet/ minute (fpm) [3,600 m/hr]. Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:



- i. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area}/\pi)^{0.5}$$

- ii. the total area of all natural draft openings ( $A_N$ ) shall not exceed 5% of the total surface area of the enclosure ( $A_T$ ), i.e., the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$

- iii. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 fpm or a pressure drop of 0.013 mm Hg (0.007 inch H<sub>2</sub>O).
- iv. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5% surface area determination in "ii", shall be completely closed to any air movement during process operations.
- v. all VOC emissions shall be captured and contained for discharge through the control device.

- e. The permanent total enclosure serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture 100% of the VOC emissions from this emissions unit.

c) Operational Restrictions

- (1) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch H<sub>2</sub>O), or an average facial velocity at each natural draft opening of 200 fpm or greater, whenever the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect the following information each month for this emissions unit:
  - a. the name and identification of each coating employed;
  - b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating, as applied;
  - c. the number of pounds of each coating employed; and
  - d. the total VOC emissions from all coatings, in pounds.



- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50° F below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.
- (3) 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  $\pm 1\%$  of the temperature being measured or  $\pm 5^\circ$  F, 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° F 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).

These records shall be maintained at the facility for a period of three years.

- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
  - a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and
  - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that



determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (5) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
  - a. the measured diameter of each natural draft opening;
  - b. the distance measured from each natural draft opening to each VOC emitting point;
  - c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
  - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
  - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5% of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.
- (6) The permittee shall install, operate, and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring



and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

- (7) The permittee shall collect and record the following information each day:
- a. all 3-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inch of water as a 3-hour average, or when the average facial velocity at any natural draft opening was less than 200 fpm; and
  - b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.
- (8) The FEPTIO application for this/these emissions unit(s), K002, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
  - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).



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

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

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

Toxic Contaminant: Toluene

TLV (mg/m3): 75.36

Maximum Hourly Emission Rate (lbs/hr): 6.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 104

MAGLC (ug/m3): 1794.33

The permittee has demonstrated that emissions of Toluene from emissions unit(s) K002 are calculated to be less than 80% of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level



concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
    - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any reevaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
    - b. the MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
    - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires reevaluation of the toxic air contaminant emissions; and
    - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
  - (11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
    - a. any exceedance of the VOC coating content limit;
    - b. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
    - c. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average combustion temperature within the thermal oxidizer was more than 50° F below the average temperature maintained during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;



- d. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
- e. all 3-hour blocks of time, when the emissions unit was in operation, during which the PTE was not maintained at the minimum pressure differential of 0.007 inch of water, or any weekly reading when the average facial velocity at natural draft openings was less than 200 fpm;
- f. each incident of deviation described above where a prompt investigation was not conducted;
- g. each incident of deviation described above where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken;
- h. each incident of deviation described above where proper records were not maintained for the investigation and/or the corrective action(s);
- i. any records of downtime (date and length of time) for the capture (collection) system, the thermal oxidizer, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
- j. a log of the operating time for the capture system, thermal oxidizer, monitoring equipment, and the emissions unit(s).

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 Northeast District Office.

- (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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.
- (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 PER. If no changes to the emissions, emission unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.



f) Testing Requirements

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

The volatile organic compound (VOC) content of coatings, excluding water and exempt solvents, shall not exceed the following:

0.03 lb/lb coating (0.303 lb/gal) for PVC adhesives and plastisols; and

0.9 lb/lb coating, (6.57 lbs/gal) for top finish.

Applicable Compliance Method:

If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and clean up material.
  - b. Emission Limitation:

VOC emissions shall not exceed 7.6 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping and reporting requirements specified in d) and e).
- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. Testing shall be conducted every 2.5 years after the last test that demonstrated compliance (5/4/2011) to demonstrate compliance with the destruction efficiency.
  - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for VOC:

Methods 1- 4 and Method 18, 25 or 25A of 40 CFR Part 60, Appendix A

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - c. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.



- d. The PTE was last verified on June 11, 1999. If there is any modification to the PTE or any change in a parameter affecting the PTE, a test shall be conducted within 90 days in accordance with the following requirements:

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through each natural draft opening.

Method 2 from 40 CFR Part 60, Appendix A shall be conducted to determine the volumetric flow rate of the exhaust stream(s) exiting the permanent total enclosure, corrected to standard conditions. If the building is being used as the permanent total enclosure, it may be necessary to measure the volumetric flow, corrected to standard conditions, of each gas stream entering the "enclosure" through a forced makeup air duct, using Method 2. The facial velocity (FV) shall be calculated using the following equation:

$$FV = (Q_o - Q_i) / A_n$$

where:

- $Q_o$  is the sum of the volumetric flow from all gas streams exiting the enclosure through an exhaust duct or hood;
- $Q_i$  is the sum of the volumetric flow from all gas streams into the enclosure through a forced makeup air duct, and is equal to zero if there is no forced makeup air into the enclosure; and
- $A_n$  is the total area of all natural draft openings in the enclosure.

If the average facial velocity is measured at greater than 500 fpm (9,000 m/hr), the direction of air flow shall be assumed to be inward at all times during the compliance demonstration. If the average facial velocity is measured at less than 500 fpm, the continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration, either by checking the flow or pressure meter(s) or through the use of streamers, smoke tubes, or tracer gases. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeters using smoke tubes or tracer gases.



The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening:

- i. the diameter of each natural draft opening;
  - ii. the distance measured from each natural draft opening to each VOC emitting point in the process;
  - iii. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening;
  - iv. the total surface area of each natural draft opening and the surface area of the enclosure's four walls, floor, and ceiling; and
  - v. the ratio of the total surface area (sum) of all natural draft openings to the total surface area of the permanent total enclosure.
- e. 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 Ohio EPA Northeast District Office. 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.
- f. The permittee shall establish the average combustion temperature during this emission test.
- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).
- h. Personnel from the Ohio EPA Northeast District Office 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.
- i. 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 Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written



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Seaman Corporation

**Permit Number:** P0114362

**Facility ID:** 0285030351

**Effective Date:** 9/10/2013

report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

g) Miscellaneous Requirements

(1) None.



2. K003, Coating Line 5

**Operations, Property and/or Equipment Description:**

Line 5 and an oven. Pad roll coating of continuous web of uncoated fabric with PVC plastisol primer or PVC plastisol.

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

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

a. None.

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

a. None.

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)	The volatile organic compound (VOC) content of PVC adhesives and plastisols, excluding water and exempt solvents, shall not exceed 0.03 lb/lb of coating (0.303 lb/gal).  VOC emissions shall not exceed 29.4 lbs/hr.  See b)(2)a and b)(2)b.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.
c.	OAC rule 3745-21-09(G)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
d.	OAC rule 3745-21-09(H)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	ORC 3704.03(F)(4)	a) See d)(3).

(2) Additional Terms and Conditions

- a. The hourly emission limitation for VOC is based on the potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop daily record keeping and/or reporting requirements to document compliance with the emission limitation.
- b. The oven shall be vented to the oxidizer to reduce visible emissions.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect the following information each month for this emissions unit:
  - a. the name and identification of each coating employed;
  - b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating, as applied;
  - c. the number of pounds of each coating employed; and
  - d. the total VOC emissions from all coatings, in pounds.
- (2) The permittee shall maintain a log of the downtime for the oxidizer for every day the oven was in operation.
- (3) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton/year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton/year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any day the VOC content of the coatings exceeded 0.303 lb/gal.



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 Northeast District Office.

- (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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The VOC content of PVC adhesives and plastisols, excluding water and exempt solvents, shall not exceed 0.03 lb/lb of coating (0.303 lb/gal).

Applicable Compliance Method:

If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and cleanup material.

- b. Emission Limitation:

VOC emissions shall not exceed 29.4 lbs/hr.

Applicable Compliance Method:

This limitation reflects the unit's PTE and was derived by the following equation:

$$U \times V \times EF$$

where:

U = maximum coating usage rate, as applied, 1000 lbs/hr;

V = VOC coating content limit, 0.03 lb/lb coating; and

EF = emission factor for mixing losses, 98%.



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g) Miscellaneous Requirements

(1) None.



3. K004, Laminator Line 8

**Operations, Property and/or Equipment Description:**

Line 8 and an IR oven. Lamination of a continuous film onto a continuous web of vinyl coated fabric, using low solvent adhesive for bonding. Line consists of two roll adhesive applicator and laminating rolls.

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

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

a. None.

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

a. None.

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)	The volatile organic compound (VOC) content of PVC adhesives and plastisols, excluding water and exempt solvents, shall not exceed 0.03 lb/lb of coating (0.303 lb/gal).  VOC emissions shall not exceed 10.6 lbs/hr.  See b)(2)a.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.
c.	OAC rule 3745-21-09(G)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
d.	OAC rule 3745-21-09(H)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	ORC 3704.03(F)(4)	See d)(2).
f.	40 CFR Part 60, Subpart VVV	Less than 95 Mg VOC/year See d)(3).

(2) Additional Terms and Conditions

a. The hourly emission limitation for VOC is based on the uncontrolled potential to emit (PTE) for this emissions unit. Therefore, it is not necessary to develop daily record keeping and/or reporting requirements to document compliance with the emission limitation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect the following information each month for this emissions unit:

- a. the name and identification of each coating employed;
- b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating, as applied;
- c. the number of pounds of each coating employed; and
- d. the total VOC emissions from all coatings, in pounds.

(2) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton/year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton/year may require the permittee to apply for and obtain a new FEPTIO.

(3) In accordance with 40 CFR Part 60, Subpart VVV, each owner of an affected facility using less than 95Mg VOC/year shall:

- a. make semiannual estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrate at the affected coating operation in that year; and
- b. maintain records of actual VOC use.



e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any day the VOC content of the coatings exceeded 0.303 lb/gal.

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 Northeast District Office.

- (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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

The VOC content of PVC adhesives and plastisols, excluding water and exempt solvents, shall not exceed 0.03 lb/lb of coating (0.303 lb/gal).

Applicable Compliance Method:

If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and clean up material.

b. Emission Limitation:

VOC emissions shall not exceed 10.6 lbs/hr.

Applicable Compliance Method:

This limitation reflects the unit's PTE and was derived by the following equation:

$$U \times V \times EF$$

where:



**Final Permit-to-Install and Operate**

Seaman Corporation

**Permit Number:** P0114362

**Facility ID:** 0285030351

**Effective Date:** 9/10/2013

U = maximum coating usage rate, as applied, 360 lbs/hr;

V = VOC coating content limit, 0.03 lb/lb coating; and

EF = emission factor for mixing losses, 98%.

g) Miscellaneous Requirements

- (1) None.



**4. K006, Coating Line 14**

**Operations, Property and/or Equipment Description:**

Four head rotogravure coating line for application of solvent or water based top finishes to continuous web of vinyl coated fabric

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)(8), d)(9), d)(10), d)(11) and e)(3)

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

a. None.

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.	ORC 3704.03(T)	The volatile organic compound (VOC) emissions shall not exceed 23.3 lbs/hr.  See b)(2)a.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.
c.	OAC rule 3745-31-05(F)	VOC content of coatings, excluding water and exempt solvents, shall not exceed the following:  0.9 lb/lb coating (6.78 lbs/gal) for top finish; 0.8 lb/lb coating (5.68 lbs/gal) for primer; and 0.02 lb/lb coating (0.21 lb/gal) for water-based mid/top coats.  See b)(2).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-09(G)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
e.	OAC rule 3745-21-09(H)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
f.	ORC 3704.03(F)(4)	See d)(8), d)(9), d)(10), d)(11) and e)(3).
g.	40 CFR Part 60, Subpart FFF	The emission limitations, monitoring, record keeping, reporting and test methods and procedures required by this applicable rule are either less stringent or equal to the emission limitations, monitoring, record keeping, reporting and test methods and procedures established pursuant to ORC 3704.03 and OAC rule 3745-31-05.

(2) Additional Terms and Conditions

- a. Except where employing water-based top coats, all of the VOC emissions from this emissions unit shall be vented to the thermal oxidizer that shall meet the operational, monitoring and record keeping requirements of this permit when the emissions unit is in operation. The oxidizer shall have a VOC destruction efficiency of at least 97%, by weight.
- b. A permanent total enclosure (PTE) shall be constructed to totally enclose the coating heads such that all VOC emissions are captured, contained and directed to the control device.
- c. The permittee has the option to perform an additional demonstration to show that each PTE cannot be compromised under normal plant conditions when the emissions unit is in operation in lieu of installing, maintaining and operating monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the PTE.

If the PTE cannot be compromised under normal plant conditions when the emissions unit is in operation, the permittee will not be required to comply with the differential pressure operational restrictions, monitoring, record keeping and reporting requirements specified below to ensure the ongoing integrity of the PTE.

If the permittee elects not to perform the additional demonstration to show that the PTE cannot be compromised or if the additional demonstration indicates that the PTE can be compromised, the permittee shall comply with the differential pressure operational restriction, monitoring, record keeping and reporting requirements, specified in sections b)(2)d, b)(2)e, c)(1), d)(5), d)(6), d)(7) and e)(1)e to ensure the ongoing integrity of the PTE.



- d. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet/ minute (fpm) [3,600 m/hr]. Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:
- i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:  
$$ED = (4 \text{ area}/\pi)^{0.5}$$
  - ii. The total area of all natural draft openings ( $A_N$ ) shall not exceed 5% of the total surface area of the enclosure ( $A_T$ ), i.e., the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:  
$$NEAR = A_N / A_T$$
  - iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 fpm or a pressure drop of 0.013 mm Hg (0.007 inch H<sub>2</sub>O).
  - iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5% surface area determination in "ii", shall be completely closed to any air movement during process operations.
  - v. All VOC emissions shall be captured and contained for discharge through the control device.
- e. The permanent total enclosure serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

c) Operational Restrictions

- (1) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inch H<sub>2</sub>O), or an average facial velocity at each natural draft opening of 200 fpm or greater, whenever the emissions unit is in operation.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall collect the following information each month for this emissions unit:
  - a. the name and identification of each coating employed;
  - b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating;
  - c. the number of pounds of each coating employed; and
  - d. the total VOC emissions from all coatings, in pounds.
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50° F below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.
- (3) 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  $\pm 1\%$  of the temperature being measured or  $\pm 5^\circ$  F, 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° F 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).

These records shall be maintained at the facility for a period of three years.
- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
  - a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;



- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (5) The permittee shall measure, document/calculate and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
  - a. the measured diameter of each natural draft opening;
  - b. the distance measured from each natural draft opening to each VOC emitting point;
  - c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor and ceiling;



- d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
  - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5% of the sum of the surface areas of the enclosure's four walls, floor and ceiling.
- (6) The permittee shall install, operate and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, with any modifications deemed necessary by the permittee.
- (7) The permittee shall collect and record the following information each day:
- a. all 3-hour blocks of time during which the difference in pressure between the PTE and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inch of water as a 3-hour average, or when the average facial velocity at any natural draft opening was less than 200 fpm; and
  - b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.
- (8) The PTI application for this emissions unit, K006, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over 1 ton/year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold



Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. the TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. this standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

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

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

Toxic Contaminant: Toluene

TLV (mg/m<sup>3</sup>): 73.36

Maximum Hourly Emission Rate (lbs/hr): 1.28

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 14.98

MAGLC (ug/m<sup>3</sup>): 1794

The permittee, has demonstrated that emissions of Toluene from emissions unit K006, are calculated to be less than 80% of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification"



under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. any exceedance of the VOC coating content limit;
  - b. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;



- c. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average combustion temperature within the thermal oxidizer was more than 50° F below the average temperature maintained during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- d. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
- e. all 3-hour blocks of time, when the emissions unit was in operation, during which the PTE was not maintained at the minimum pressure differential of 0.007 inch of water, or any weekly reading when the average facial velocity at natural draft openings was less than 200 fpm;
- f. each incident of deviation described above where a prompt investigation was not conducted;
- g. each incident of deviation described above where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken;
- h. each incident of deviation described above where proper records were not maintained for the investigation and/or the corrective action(s);
- i. any records of downtime (date and length of time) for the capture (collection) system, the thermal oxidizer, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
- j. a log of the operating time for the capture system, thermal oxidizer, monitoring equipment, and the emissions unit(s).

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 Northeast District Office.

- (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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.



- (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 PER. If no changes to the emissions, emission unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

VOC emissions shall not exceed 23.3 lbs/hr.

Applicable Compliance Method:

This emission limitation is based upon the emissions unit's controlled potential to emit using the worst case coating blend and was derived from the following equation:

$$[(P + TF)(1-0.97) + (MC)](0.98) = 23.3 \text{ lbs/hr}$$

where:

P = Primer:  $(272 \text{ lbs/hr})(80\% \text{ VOC}) = 217.6 \text{ lbs/hr}$ ;

MC = Mid Coat:  $(229 \text{ lbs/hr})(2\% \text{ VOC}) = (4.58 \text{ lbs/hr})(2) = 9.16 \text{ lbs/hr}$ ;

TF = Top Finish:  $(298 \text{ lbs/hr})(90\% \text{ VOC}) = 268.2 \text{ lbs/hr}$ ;

0.97 = the fractional control efficiency; and

0.98 = emission factor, assuming 2% of VOC emitted during mixing and 98% at the coating line.

- b. Emission Limitation:

VOC content of coatings, excluding water and exempt solvents, shall not exceed the following:

0.9 lb/lb coating (6.78 lbs/gal) for top finish;

0.8 lb/lb coating (5.68 lbs/gal) for primer; and

0.02 lb/lb coating (0.21 lb/gal) for water-based mid/top coats.

Applicable Compliance Method:

If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and cleanup material.



- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. Testing shall be conducted within 60 days of permit issuance and every 2.5 years thereafter to demonstrate compliance with the capture and destruction efficiencies.
  - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
Methods 1- 4 and Method 18, 25 or 25A of 40 CFR Part 60, Appendix A; and Methods 204 - 204F of 40 CFR Part 51, Appendix M.  
  
Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - c. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)
  - e. During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through each natural draft opening.
  - f. Method 2 from 40 CFR Part 60, Appendix A shall be conducted to determine the volumetric flow rate of the exhaust stream(s) exiting the permanent total enclosure, corrected to standard conditions. If the building is being used as the permanent total enclosure, it may be necessary to measure the volumetric flow, corrected to standard conditions, of each gas stream entering the "enclosure" through a forced makeup air duct, using Method 2. The facial velocity (FV) shall be calculated using the following equation:

$$FV = (Q_o - Q_i) / A_n$$

where:



- $Q_o$  is the sum of the volumetric flow from all gas streams exiting the enclosure through an exhaust duct or hood;
- $Q_i$  is the sum of the volumetric flow from all gas streams into the enclosure through a forced makeup air duct, and is equal to zero if there is no forced makeup air into the enclosure; and
- $A_n$  is the total area of all natural draft openings in the enclosure.
- g. If the average facial velocity is measured at greater than 500 fpm (9,000 m/hr), the direction of air flow shall be assumed to be inward at all times during the compliance demonstration. If the average facial velocity is measured at less than 500 fpm, the continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration, either by checking the flow or pressure meter(s) or through the use of streamers, smoke tubes, or tracer gases. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeters using smoke tubes or tracer gases.
- h. The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening:
- i. the diameter of each natural draft opening;
  - ii. the distance measured from each natural draft opening to each VOC emitting point in the process;
  - iii. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening;
  - iv. the total surface area of each natural draft opening and the surface area of the enclosure's four walls, floor, and ceiling; and
  - v. the ratio of the total surface area (sum) of all natural draft openings to the total surface area of the permanent total enclosure.
- i. 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 emission limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Northeast District Office. 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.
- j. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

- k. Personnel from the Ohio EPA Northeast District Office 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.
- l. 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

g) **Miscellaneous Requirements**

- (1) None.



**5. Emissions Unit Group -Group 1 - Dry Blend Mixers: P001, P004**

EU ID	Operations, Property and/or Equipment Description
P001	Dry blend mixing, cooling and pneumatic loading/unloading. Mixing controlled by Torit 1 dust collector; Pneumatic conveying system controlled by silo fabric filter.
P004	900 lbs/hr dry blend drum mixer vented to the Torit 2 dust collector.

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

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

a. None.

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

a. None

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><b>P001:</b></p> <p>Particulate emissions (PE) shall not exceed 0.02 gr/dscf of exhaust gas from either the storage silo fabric filter or the Torit 1 dust collector.</p> <p>PE shall not exceed 2.4 tpy from the storage silo fabric filter and the Torit 1 dust collector, combined.</p> <p>Visible PE from either the storage silo filter or the Torit 1 dust collector shall not exceed 5% opacity, as a 6-minute average.</p> <p>There shall be no visible emissions, except for 1 minute in any hour, from any building opening.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><b>P004:</b></p> <p>PE from emissions units P002 - P004 and P006 - P008, combined, shall not exceed 0.03 gr/dscf of exhaust gas.</p> <p>Visible PE from the Torit 2 exhaust stack shall not exceed 0% opacity as a 6-minute average, except for 1 minute during any 60-minute period.</p> <p>See b)(2)a.</p>
b.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B)	Exempt. See b)(2)b.
d.	OAC rule 3745-17-08(B)	Exempt. See b)(2)c.
e.	OAC rule 3745-17-11(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from these emissions units shall be vented to the dust collectors at all times the emissions units are in operation.
- b. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- c. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The pressure drop across the baghouse shall be maintained within the range recommended by the manufacturer while the emissions units are in operation or within a range established during the most recent performance test that demonstrated the emissions units were in compliance.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The



monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.



e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

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 Northeast District Office.

- (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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:

PE shall not exceed 0.02 gr/dscf of exhaust gas from either the storage silo fabric filter or the Torit 1 dust collector.



Applicable Compliance Method:

If required, compliance with the gr/dscf limitation shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

b. Emission Limitation:

PE shall not exceed 2.4 tpy from the storage silo fabric filter and the Torit 1 dust collector, combined.

Applicable Compliance Method:

Compliance with the annual limitation shall be determined by the following equation:

$$([G \times S \times (60 \text{ min/hr})(1 \text{ lb}/7000\text{gr})] + [G \times T \times (60 \text{ min/hr})(1 \text{ lb}/7000\text{gr})]) \times 8760 \text{ hr/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

where:

G = grain loading factor for each dust collector, 0.02 gr/dscf;

S = exhaust flow rate from silo fabric filter, cfm; and

T = exhaust flow rate from Torit 1 dust collector, cfm.

c. Emission Limitation:

Visible PE from either the storage silo filter or the Torit 1 dust collector shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

d. Emission Limitation:

There shall be no visible emissions, except for 1 minute in any hour, from any building opening.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

e. Emission Limitation:

PE from emissions units P002 - P004 and P006 - P008, combined, shall not exceed 0.03 gr/dscf of exhaust gas.



Applicable Compliance Method:

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitation:

Visible PE from the Torit 2 exhaust stack shall not exceed 0% opacity as a 6-minute average, except for 1 minute during any 60-minute period.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

- (1) None.



**6. Emissions Unit Group -Group 2 - Plastisol Mixers: P002, P003**

EU ID	Operations, Property and/or Equipment Description
P002	Large Cowles mixer for emissions units K002 and K003 vented to Torit 2 dust collector
P003	Large Cayuga mixer for emissions units K002 and K003 vented to Torit 2 dust collector

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

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

a. None.

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

a. None.

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>The volatile organic compound (VOC) content of the coating mix shall not exceed 0.03 lb/lb of coating.</p> <p>VOC emissions from each mixer shall not exceed 2.88 lbs/hr.</p> <p>See b)(2)a.</p> <p>Particulate emissions (PE) from emissions units P002 - P004 and P006 - P008, combined, shall not exceed 0.03 gr/dscf of exhaust gas.</p> <p>See b)(2)b.</p> <p>Visible PE from the exhaust stack shall not exceed 0% opacity as a 6-minute average, except for 1 minute during any 60-minute period.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.
c.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)c.
e.	OAC rule 3745-17-08(B)	Exempt. See b)(2)d.
f.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	ORC 3704.03(F)(4)	See d)(4).

(2) Additional Terms and Conditions

- a. The hourly emission limitation for VOC is based on the uncontrolled potential to emit (PTE) for each emissions unit, therefore, no monitoring or record keeping is required to document compliance with the emission limitations.
- b. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.
- c. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- d. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect the following information each month for this emissions unit:
  - a. the name and identification of each coating employed;
  - b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating;
  - c. the number of pounds of each coating mixed; and
  - d. the total VOC emissions from all coatings, in pounds.



- (2) The pressure drop across the baghouse shall be maintained within the range recommended by the manufacturer while the emissions units are in operation or within a range established during the most recent performance test that demonstrated the emissions units were in compliance.
- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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



This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton/year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton/year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

- (1) 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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.



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 Northeast District Office.

f) Testing Requirements

(1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

The VOC content of the coating mix shall not exceed 0.03 lb/lb of coating.

Applicable Compliance Method:

If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and cleanup material.

b. Emission Limitation:

VOC emissions from each mixer shall not exceed 2.88 lbs/hr.

Applicable Compliance Method:

The hourly limitation is based on each mixer's uncontrolled PTE and was derived by the following equation:

$$U \times V \times EF$$

where:

U = maximum coating mix rate as applied, 4,800 lbs/hr;

V = VOC coating content limit, 0.03 lb/lb coating; and

EF = emission factor for mixing losses, 2%.

c. Emission Limitation:

PE from emissions units P002 - P004 and P006 - P008, combined, shall not exceed 0.03 gr/dscf of exhaust gas.

Applicable Compliance Method:

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.



d. Emission Limitation:

Visible PE from the exhaust stack shall not exceed 0% opacity as a 6-minute average, except for 1 minute during any 60-minute period.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

(1) None.



7. P005, Top Finish mixer

**Operations, Property and/or Equipment Description:**

55 gallon drum mixer for the manufacture of top finish.

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

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

a. None.

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

a. None.

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)	The volatile organic compound (VOC) content of the coating mix shall not exceed 0.9 lb/lb of coating.  VOC emissions shall not exceed 4.5 lbs/hr.  See b)(2)a.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.
c.	ORC 3704.03(F)(4)	See d)(2).

(2) Additional Terms and Conditions

a. The hourly emission limitation for VOC is based on the uncontrolled potential to emit (PTE) for this emissions unit, therefore, no monitoring or record keeping is required to document compliance with the emission limitations.



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect the following information each month for this emissions unit:
- a. the name and identification of each coating employed;
  - b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating;
  - c. the number of pounds of each coating mixed; and
  - d. the total VOC emissions from all coatings, in pounds.
- (2) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton/year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton/year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

- (1) 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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:  
  
The volatile organic compound (VOC) content of the coating mix shall not exceed 0.9 lb/lb of coating.
- Applicable Compliance Method:
- If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and cleanup material.



b. Emission Limitation:

VOC emissions shall not exceed 4.5 lbs/hr.

Applicable Compliance Method:

The hourly limitation is based on the uncontrolled PTE and was derived by the following equation:

$$U \times V \times EF$$

where:

U = maximum coating mix rate as applied, 250 lbs/hr;

V = VOC coating content limit, 0.9 lb/lb coating; and

EF = emission factor for mixing losses, 2%.

g) Miscellaneous Requirements

(1) None.



8. Emissions Unit Group -Group 3 - Adhesive Mixers: P006, P007, P008

EU ID	Operations, Property and/or Equipment Description
P006	55 gallon drum mixer vented to the Torit 2 dust collector.
P007	Mixing Equipment Company 55 gallon drum mixer vented to the Torit 2 dust collector.
P008	Myers model 7754-15-294 55 gallon drum mixer vented to the Torit 2 dust collector.

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

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

a. None.

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

a. None.

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>The volatile organic compound (VOC) content of the coating mix shall not exceed 0.03 lb/lb of coating.</p> <p>VOC emissions from each mixer shall not exceed 0.72 lb/hr.</p> <p>See b)(2)a.</p> <p>Particulate emissions (PE) from emissions units P002 - P004 and P006 - P008, combined, shall not exceed 0.03 gr/dscf of exhaust gas.</p> <p>See b)(2)b.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Visible PE from the dust collector exhaust stack shall not exceed 0% opacity, as a 6-minute average, except for 1 minute during any 60-minute period.
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V and MACT	See facility-wide term and condition B.2.
c.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)c.
e.	OAC rule 3745-17-08(B)	Exempt. See b)(2)d.
f.	OAC rule 3745-17-11(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	ORC 3704.03(F)(4)	See d)(4).
h.	40 CFR Part 60, Subpart VV	Less than 95 Mg VOC/year  See d)(5).

(2) Additional Terms and Conditions

- a. The hourly emission limitation for VOC is based on the uncontrolled potential to emit (PTE) for these emissions units, therefore, no monitoring or record keeping is required to document compliance with the emission limitations.
- b. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.
- c. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- d. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect the following information each month for this emissions unit:



- a. the name and identification of each coating employed;
  - b. the VOC content of each coating employed, less water and exempt solvents, in lbs VOC/lb coating;
  - c. the number of pounds of each coating mixed; and
  - d. the total VOC emissions from all coatings, in pounds.
- (2) The pressure drop across the baghouse shall be maintained within the range recommended by the manufacturer while the emissions units are in operation or within a range established during the most recent performance test that demonstrated the emissions units were in compliance.
- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;



- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton/year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton/year may require the permittee to apply for and obtain a new FEPTIO.
- (5) In accordance with 40 CFR Part 60, Subpart VVV, each owner of an affected facility using less than 95Mg VOC/year shall:
  - a. make semiannual estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrate at the affected coating operation in that year; and
  - b. maintain records of actual VOC use.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;



- d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

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 Northeast District Office.

- (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 e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The VOC content of the coating mix shall not exceed 0.03 lb/lb of coating.

Applicable Compliance Method:

If required, USEPA Method 24 or formulation data shall be used to determine the VOC/HAP content(s) of each coating and cleanup material.

- b. Emission Limitation:

VOC emissions from each mixer shall not exceed 0.72 lb/hr.

Applicable Compliance Method:

The hourly limitation is based on each mixer's uncontrolled PTE and was derived by the following equation:

$$U \times V \times EF$$

where:



U = maximum coating mix rate as applied, 1,200 lbs/hr;  
V = VOC coating content limit, 0.03 lb/lb coating; and  
EF = emission factor for mixing losses, 2%.

c. Emission Limitation:

PE from emissions units P002 - P004 and P006 - P008, combined, shall not exceed 0.03 gr/dscf of exhaust gas.

Applicable Compliance Method:

If required, compliance shall be demonstrated through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

d. Emission Limitation:

Visible PE from the dust collector exhaust stack shall not exceed 0% opacity, as a 6-minute average, except for 1 minute during any 60-minute period.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

(1) None.