



Environmental Protection Agency

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

5/30/2012

KAREN TOTH  
Von Roll Isola USA Inc  
200 Von Roll Drive  
Schenectady, NY 12306

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1318002663  
Permit Number: P0109357  
Permit Type: Renewal  
County: Cuyahoga

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

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

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: CDAQ





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Von Roll Isola USA Inc**

Facility ID:	1318002663
Permit Number:	P0109357
Permit Type:	Renewal
Issued:	5/30/2012
Effective:	5/30/2012
Expiration:	5/30/2017





Division of Air Pollution Control
Permit-to-Install and Operate
for
Von Roll Isola USA Inc

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## Authorization

Facility ID: 1318002663

Application Number(s): A0043496

Permit Number: P0109357

Permit Description: Renewal FEPTIO for various emissions units used in the production of mica (a non-metallic mineral) based insulation materials for thermal insulation of equipment that is subject to extremely high temperatures, such as induction ovens, electrical machines, and cable insulation for fire resistance. P001 - #42 Roll Coater previously permitted under State PTO P0094408 (issued 6/11/2008) P003 - #36 Davis Machine with Infrared Drier previously permitted under State PTO P0094408 (issued 6/11/2008) P005 - #31 Mica Laying Machine previously permitted under State PTO P0094408 (issued 6/11/2008) P011 - Mica Coater - Machine No. 4 previously permitted State PTO P0094408 (issued 6/11/2008) P012 - #211 Mica Laminator previously permitted under State PTO P0094408 (issued 6/11/2008) P015 - M-5 HAND ROLLER COATING previously permitted under State PTO P0094408 (issued 6/11/2008) P016 - M-7 HAND ROLLER COATING previously permitted under State PTO P0094408 (issued 6/11/2008) P017 - Line No. 32 -- Banding Tape Machine previously permitted under PTI 13-04333 (issued 8/26/2004) P018 - Mixing Storage - previously permitted under State PTO P0094410 (issued 5/30/2008) P022 - Hand coating mica line with steam table previously permitted under State PTO P0094410 (issued 5/30/2008)

Permit Type: Renewal

Permit Fee: \$0.00

Issue Date: 5/30/2012

Effective Date: 5/30/2012

Expiration Date: 5/30/2017

Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

Von Roll Isola USA Inc  
4853 W. 130th Street  
Cleveland, OH 44135

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

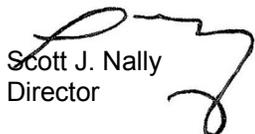
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality  
2nd Floor  
75 Erieview Plaza  
Cleveland, OH 44114  
(216)664-2297

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: P0109357

Permit Description: Renewal FEPTIO for various emissions units used in the production of mica (a non-metallic mineral) based insulation materials for thermal insulation of equipment that is subject to extremely high temperatures, such as induction ovens, electrical machines, and cable insulation for fire resistance. P001 - #42 Roll Coater previously permitted under State PTO P0094408 (issued 6/11/2008) P003 - #36 Davis Machine with Infrared Drier previously permitted under State PTO P0094408 (issued 6/11/2008) P005 - #31 Mica Laying Machine previously permitted under State PTO P0094408 (issued 6/11/2008) P011 - Mica Coater - Machine No. 4 previously permitted State PTO P0094408 (issued 6/11/2008) P012 - #211 Mica Laminator previously permitted under State PTO P0094408 (issued 6/11/2008) P015 - M-5 HAND ROLLER COATING previously permitted under State PTO P0094408 (issued 6/11/2008) P016 - M-7 HAND ROLLER COATING previously permitted under State PTO P0094408 (issued 6/11/2008) P017 - Line No. 32 -- Banding Tape Machine previously permitted under PTI 13-04333 (issued 8/26/2004) P018 - Mixing Storage - previously permitted under State PTO P0094410 (issued 5/30/2008) P022 - Hand coating mica line with steam table previously permitted under State PTO P0094410 (issued 5/30/2008)

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

- Emissions Unit ID: P005**  
Company Equipment ID: #31 Mica Laying  
Superseded Permit Number: P0094408  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P017**  
Company Equipment ID: Banding Tape Machine- Line No. 32  
Superseded Permit Number: 13-04333  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P018**  
Company Equipment ID: Mixing Storage  
Superseded Permit Number: P0094410  
General Permit Category and Type: Not Applicable

### Group Name: Mica Coating

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	#42 Roll Coating
Superseded Permit Number:	P0094408
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	#36 Davis Machine
Superseded Permit Number:	P0094408
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P011</b>
Company Equipment ID:	#4 Hand Laying
Superseded Permit Number:	P0094408
General Permit Category and Type:	Not Applicable

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

Von Roll Isola USA Inc

**Permit Number:** P0109357

**Facility ID:** 1318002663

**Effective Date:** 5/30/2012

<b>Emissions Unit ID:</b>	<b>P012</b>
Company Equipment ID:	#211 Laminator
Superseded Permit Number:	P0094408
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P015</b>
Company Equipment ID:	M-5 Hand Roller Coating
Superseded Permit Number:	P0094408
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P016</b>
Company Equipment ID:	M-7 Hand Roller Coating
Superseded Permit Number:	P0094408
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P022</b>
Company Equipment ID:	Steam Table
Superseded Permit Number:	P0094410
General Permit Category andType:	Not Applicable

## **A. Standard Terms and Conditions**

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

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

**2. Who is responsible for complying with this permit?**

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

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

**3. What records must I keep under this permit?**

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

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

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

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

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

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

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

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

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

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

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

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

**7. What reports must I submit under this permit?**

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

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

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

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

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

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

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

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Cleveland Division of Air Quality 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.

## **B. Facility-Wide Terms and Conditions**

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

Von Roll Isola USA Inc

**Permit Number:** P0109357

**Facility ID:** 1318002663

**Effective Date:** 5/30/2012

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.

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.

(2) b)(2)a., d)(1),e)(2), f)(1)a., f)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V and MACT Applicability	See b)(2)a. below.

(2) Additional Terms and Conditions

a. The total allowable usage and emissions of Hazardous Air Pollutants (HAPs) shall not exceed 9.9 tons per year (TPY) for any individual HAP and 24.9 TPY for any combination of HAPs from all emissions units that generate HAP emissions at this facility. Compliance with the above limitations shall be based upon a rolling, 12-month summation.

The current list of emissions units at this facility are B001, B002, B003, P001, P002, P003, P005, P008, P009, P011, P012, P015, P016, P017, P018, P019, P020, P021, P022, P023, P024, T001, T002, and T004.

c) Operational Restrictions

a. None.

d) Monitoring and Recordkeeping Requirements

- (1) The permittee shall collect and record the HAP information each month from Section C to calculate the rolling, 12-month summation of HAP emissions for the entire facility.
- (2) For the purpose of determining compliance with the facility-wide 12 month, rolling individual and combined HAP limitations, the PTE emissions rates identified in the table below shall be utilized:

HAP Generating Emissions Units		
Emissions Unit	Description	PTE Combined HAP TPY
B001	Boiler #1 - 6.278 MMBTU/hr (Natural Gas)	0.05
B002	Boiler #2 - 5.2 MMBTU/hr (Natural Gas)	0.04
B003	Boiler #3 - 5.2 MMBTU/hr (Natural Gas)	0.04
P019	Steam Presses	0.82
P020	#41 Oven - 0.4 MMBTU/hr (Natural Gas)	0.003
P021	#28A Oven - 0.2 MMBTU/hr (Natural Gas)	0.002
P024	Space Heaters (All Use Natural Gas): Shipping Dock: 0.4 MMBTU/hr Ground Level Dock: 0.16 MMBTU/hr Maintenance: 0.116 MMBTU/hr Tool Room: 0.075 MMBTU/hr	0.006
P009	#197 Oven for P008 - 2 MMBTU/hr (Natural Gas)	0.016
T001	#1 Methanol (10,000 gallon UST)	0.009
T004	#3 Toluene (4,000 gallon UST)	0.004

- a. Combined potential HAP emissions from natural gas burning emissions sources were determined through use of the following equation:



ii. each month during which the rolling, 12-month combined HAP material usage and emissions exceeds 24.9 TPY based on a rolling, 12-month summation, and the actual rolling, 12-month combined HAP emissions for each such month.

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

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

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

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

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

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

f) Testing Requirements

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

a. Emission Limitation:

Individual HAP emissions shall not exceed 9.9 TPY facility-wide.

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements identified in d)(1) and section C.

b. Emission Limitation:

Combined HAP emissions shall not exceed 24.9 TPY facility-wide.

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements identified in d)(1) and section C.

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

Von Roll Isola USA Inc

**Permit Number:** P0109357**Facility ID:** 1318002663**Effective Date:** 5/30/2012

- (2) Formulation data or U.S. EPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the VOC content of the coatings/adhesives and cleanup materials. The CDAQ may require that U.S. EPA Method 24 be used to determine the VOC content of the coatings/adhesives and cleanup materials. If an owner or operator determines that Method 24 cannot be used for a particular coating/adhesive or cleanup material, the permittee shall so notify the administrator of the U.S. EPA and shall use formulation data for that coating, adhesive, or cleanup material to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.

## g) Miscellaneous Requirements

- (1) The following table identifies all emissions units located at this facility and each unit's permit status as of the issuance of this permit:

<b>EU ID</b>	<b>DESCRIPTION</b>	<b>PERMIT</b>
P001	#42 Roll Coating	P0109357
P003	#36 Davis Machine	P0109357
P005	#31 Mica Laying (Vents to Thermal Oxidizer)	P0109357
P011	#210 Hand Laying Mica Coater/Oven	P0109357
P012	#211 Laminator	P0109357
P015	M-5 Hand Roller Coating	P0109357
P016	M-7 Hand Roller Coating	P0109357
P017	# 32 Banding Tape Machine (Vents to Thermal Oxidizer)	P0109357
P018	Mixing Storage Room (Binder Room)	P0109357
P022	Hand Laying/Steam Tables	P0109357
B001	Boiler #1 - 6.278 MMBTU/hr (Natural Gas)	Permanent Exemption 3745-31-03 (A)(1)(a)

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

Von Roll Isola USA Inc

**Permit Number:** P0109357**Facility ID:** 1318002663**Effective Date:** 5/30/2012

B002	Boiler #2 - 5.2 MMBTU/hr (Natural Gas)	Permanent Exemption 3745-31-03 (A)(1)(a)
B003	Boiler #3 - 5.2 MMBTU/hr (Natural Gas)	Permanent Exemption 3745-31-03 (A)(1)(a)
P002	Tin Room (Waterborne Inorganic Coating Mixing Tank & NaOH Parts Cleaner)	De Minimis (Emits 0.15 lbs ammonia per day) 3745-15-05 (B)
P008	#196 Inorganic Treater (Uses Waterborne Inorganic Coating)	De Minimis (Emits 5.7 lbs ammonia per day) 3745-15-05 (B)
P009	#197 Oven for P008 - 2 MMBTU/hr (Natural Gas)	Permanent Exemption 3745-31-03 (A)(1)(a)
T001	#1 Methanol (10,000 gallon UST)	Permanent Exemption 3745-31-03 (A)(1)(I)(iv)
T002	#2 MEK (6,000 gallon UST)	Permanent Exemption 3745-31-03 (A)(1)(I)(iv)
T004	#3 Toluene (4,000 gallon UST)	Permanent Exemption 3745-31-03 (A)(1)(I)(iv)
P019	Steam Presses	Permanent Exemption 3745-31-03 (A)(1)(m)
P020	#41 Oven - 0.4 MMBTU/hr (Natural Gas)	Permanent Exemption 3745-31-03 (A)(1)(a)
P021	#28A Oven - 0.2 MMBTU/hr (Natural Gas)	Permanent Exemption 3745-31-03 (A)(1)(a)
P023	Sanding Machines with Baghouses (1,848 acfm)	Permanent Exemption 3745-31-03 (A)(1)(y)
P024	Space Heaters (All Use Natural Gas): Shipping Dock: 0.4 MMBTU/hr Ground Level Dock: 0.16 MMBTU/hr Maintenance: 0.116 MMBTU/hr Tool Room: 0.075 MMBTU/hr	Permanent Exemption 3745-31-03 (A)(1)(a)

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

**1. P005, #31 Mica Laying**

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

Mica Laying Machine #31 - Continuous Mica Coater Equipped with a Drying Oven and Thermal Oxidizer

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

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

a. None.

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

a. b)(1)a., b)(2)a., d)(3), and e)(2)

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(D)(1)(b)	See b)(1)b. and d)(3) below and Section B.
b.	OAC rule 3745-21-09(NN)(1)	VOC emissions shall be controlled by an emission control system with a capture efficiency of 100% and a control destruction efficiency of at least 95%, by weight.  See b)(2)a. below.

(2) Additional Terms and Conditions

- a. This emissions unit shall employ a thermal incinerator as the control device for the VOC emissions and shall employ a permanent total enclosure that complies with USEPA method 204.

c) Operational Restrictions

- (1) The average combustion temperature within the thermal oxidizer, for any 3-hour period when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
- (2) The permittee must monitor the thermal oxidizer and comply with the record keeping and reporting requirements identified in d)(1) and e)(2).
- (3) The permanent total enclosure shall be maintained under negative pressure at a minimum differential pressure of 0.007 in of water, as a 3-hr average, at all times when the mica coating line is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit or Celsius. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day this emissions unit is in operation:

- a. all 3-hour periods (during actual coating operations) during which the average combustion temperature within the combustion chamber of the thermal oxidizer is more than 50 degrees Fahrenheit (28 degrees Celsius below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance);
  - b. a log of the downtime for the capture (collection) system, control system, and monitoring equipment, when the associated emissions unit is in operation;
  - c. all time periods of mixing or coating operations when the emission control device is malfunctioning or not in use; and
  - d. all time periods of mixing or coating operations when each monitoring device is malfunctioning or not in use.
- (2) The permittee shall maintain and operate monitoring devices and a recorder to simultaneously and continuously measure and record the pressure differential between the inside and the adjacent area outside the permanent total enclosure. The monitoring

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

- (3) The permittee shall collect and record the following information each month for this emissions unit including a rolling, 12-month summation of HAP emissions:
- a. the name and identification number of each HAP containing material employed;
  - b. the individual HAP content for each HAP, in pounds of individual HAP per gallon;
  - c. the total combined HAP content, in pounds of combined HAPs per gallon [sum all the individual HAP contents from (b)];
  - d. the number of gallons of each HAP containing material employed;
  - e. the total individual HAP usage and emissions for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b x d)x(1 - overall control efficiency) for each material] see \* note below;
  - f. the total combined HAP usage and emissions from all HAP containing materials, in pounds or tons per month [the sum of (c x d)x(1 - overall control efficiency) for each material] see \* note below;
  - g. the updated rolling, 12-month summation of usage and emissions for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
  - h. the updated rolling, 12-month summation of usage and emissions for total combined HAPs, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* The thermal oxidizer overall control efficiency only applies to emissions units P005 and P017 where the overall control efficiency is determined from the most recent stack test that demonstrated compliance.

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 eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

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- i. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance and/or any records of downtime for the capture (collection) system, the thermal incinerator, or the monitoring equipment when the emissions unit was in operation; and
- ii. all 3-hour blocks of time during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
- b. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- c. the magnitude and duration of each deviation (excursion).

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

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 CDAQ.

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

f) Testing Requirements

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

- a. Emission Limitation:

VOC emissions shall be controlled by an emission control system with a capture efficiency of 100% and a control destruction efficiency of at least 95%, by weight.

- a. Applicable Compliance Method:

Compliance with control and capture efficiency shall be determined in accordance with the test methods and procedures specified in f)(2) of these terms and conditions.

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

- a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

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- b. The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOC emissions.
- c. 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 CDAQ 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).
- d. 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 OAC rule 3745- 21-10. 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. The permittee shall test both the inlet and outlet of the control device.

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

- e. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) and the destruction efficiency:

Method 25 of 40 CFR Part 60, Appendix A - Total Gaseous Non-methane Organic Emissions, or;

Method 25A of 40 CFR Part 60, Appendix A – Total Gaseous Organic Concentration (Flame Ionization)

Method 204 of 40 CFR Part 51, Appendix M - Permanent or Temporary Total Enclosure (TTE) for Determining Capture Efficiency

Alternative U.S. EPA approved test methods for the determination of capture efficiency in accordance with the U.S. EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995., may be used with prior approval from the Ohio EPA.

- f. 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 CDAQ. 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.

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- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the CDAQ. 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 CDAQ's refusal to accept the results of the emission test(s).
- h. Personnel from the CDAQ 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 CDAQ 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 CDAQ.

g) **Miscellaneous Requirements**

- (1) This emissions unit was installed on 1/1/1970.
- (2) Average hourly VOC emissions rate generated by this emissions unit - 2.71 lbs/hour (determined from 10/4/2011 and 10/5/2011 stack test)

**2. P017, Banding Tape Machine- Line No. 32**

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

Line No. 32 - Banding Tape Machine with Associated Mixer and 1.5 MMBTU/hr Oven Controlled by a Thermal Oxidizer

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

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

a. d)11, d)12, and d)(13)

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

a. b)(1)c., b)(1)e., b)(2)a., d)(2), d)(3), d)(6), d)(7), d)(8), d)(9), e)(2), e)(3), and f)(1)d.

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) (PTI 13-04333 issued 8/26/04)	<p>Volatile Organic Compound (VOC) emissions, from this emissions unit, shall not exceed 1.70 lbs/hr and 7.45 tons per year (TPY) from coatings, calculated as a 12-month rolling total.</p> <p>VOC emissions, from this emissions unit, shall not exceed 0.2 TPY from cleanup materials, calculated as a 12-month rolling total.</p> <p>The thermal oxidizer shall achieve a control (destruction) efficiency of at least 95%, by weight, and the capture efficiency of the permanent total enclosure(s) shall be at least 99.5%, by weight for VOC.</p>

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of 40 CFR 60, Subpart VVV.
b.	OAC rule 3745-21-07(M)(2)	The control (destruction) efficiency established by this rule is less stringent than the control (destruction) efficiency established pursuant to OAC Rule 3745-31-05(A)(3).
c.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor to avoid Title V	See b)(2)a. and d)(7) below and Section B.
d.	OAC rule 3745-114	See d)(11) through (13)
e.	40 CFR Part 60, Subpart VVV (40 CFR 60.740 – 748)  [In accordance with 40 CFR 60.740, this emission unit is a coating operation which applies polymeric coatings to supporting substrates and is subject to the emissions limitations and/or control measures specified in this section.]	See c)(2); d)(3), (6), (8), (9); e)(2)a. and b., e)(4); and f)(2).  The control efficiency limitation specified by this rule is equivalent to the control efficiency limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. VOC emissions from the banding tape coating process, P017, will be collected in a permanent total enclosure and controlled by a thermal oxidizer. The mixing equipment associated with the banding tape coating preparation will be located within the permanent total enclosure so that all emissions from mixing of the banding tape coatings are captured and controlled.

These emissions will be directed to a thermal oxidizer with an efficiency of at least 95%, by weight. The permanent total enclosure will conform to U.S. EPA Method 204. Instead of monitoring coating usage, the facility has chosen to control the mixing associated with this emissions unit.

c) Operational Restrictions

- (1) The average combustion temperature within the thermal oxidizer, for any 3-hour period when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

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- (2) The thermal oxidizer shall be operated and maintained such that the control efficiency, determined using Equation 1 specified in 40 CFR 60.743 and the test methods and procedures specified in 40 CFR 60.745 (b) through (g), is equal to or greater than 0.95. The permittee must monitor the thermal oxidizer pursuant to the requirements of 40 CFR 60.744(e) and comply with the reporting and record keeping requirements of 40 CFR 60.747(d).
  - (3) The permanent total enclosure shall be maintained under negative pressure during the actual coating operation (except during setup, changeover or cleanup), monitoring reading shall not vary by 5 percent or more from the operating parameters established in the approved total enclosure monitoring plan, identified in d)(8) of this permit.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information for each day this emissions unit is in operation:
    - a. the name and identification number of each coating, as applied;
    - b. the name and identification number of each cleanup material dispensed;
    - c. the total amount, in gallons, of each coating applied including any reducer added at the line;
    - d. the amount, in gallons, of each cleanup material dispensed;
    - e. the total number of hours the emissions unit was in operation;
    - f. the VOC content of each coating and cleanup material, in pounds VOC per gallon, as applied;
    - g. the total VOC emission rate for all coatings, in pounds and tons [summation of (c x f) x (1 - control efficiency established during most recent emission test) for all coatings];
    - h. the average hourly emission rate [(g/e)];
    - i. the amount, in gallons, of cleanup material that is contained for disposal; and
    - j. the total emission rate for cleanup material [(f(d-i) x (1 - control efficiency established during most recent emission test)], in pounds and tons.
  - (2) The permittee shall collect the records identified in d)(1) and use this information to determine, on a monthly basis the following:
    - a. the 12-month rolling VOC emissions in tons per year for all coatings; and
    - b. the 12-month rolling VOC emissions in tons per year for all cleanup solvent.

- (3) As specified in 40 CFR 60.744(a), (e), and (i) through (k), the permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation.

Units shall be in degrees Fahrenheit or Celsius. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

- (4) The permittee shall collect and record the following information for each day this emissions unit is in operation:
- a. all 3-hour periods (during actual coating operations) during which the average combustion temperature within the combustion chamber of the thermal oxidizer was more than 50 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
  - b. a log of the downtime for the capture (collection) system, control system, and monitoring equipment, when the associated emissions unit was in operation;
  - c. all time periods of mixing or coating operations when the emission control device is malfunctioning or not in use; and
  - d. all time periods of mixing or coating operations when each monitoring device is malfunctioning or not in use.

- (5) The permittee shall maintain and operate monitoring devices which measures the pressure differential between the inside and the adjacent area outside the permanent total enclosure. The monitoring devices shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall record and maintain the following information on a daily basis:

- a. All 3-hour periods (during actual coating operations) during which the differences in pressure between the permanent total enclosure and the surrounding area(s) readings vary by 5 percent or more from the operating parameters established in the approved total enclosure monitoring plan, identified in d)(8).
- (6) As specified in 40 CFR 60.742(c)(1), the permittee shall install, operate, and maintain a cover on the mixing equipment associated with this emissions unit and vent the VOC emissions to the thermal oxidizer.
- (7) The permittee shall collect and record the following information each month for this emissions unit including a rolling, 12-month summation of the HAP emissions:

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- a. the name and identification number of each HAP containing material employed;
- b. the individual HAP content for each HAP, in pounds of individual HAP per gallon;
- c. the total combined HAP content, in pounds of combined HAPs per gallon [sum all the individual HAP contents from (b)];
- d. the number of gallons of each HAP containing material employed;
- e. the total individual HAP usage and emissions for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b x d)x(1 - overall control efficiency) for each material], see \* note below;
- f. the total combined HAP usage and emissions from all HAP containing materials, in pounds or tons per month [the sum of (c x d)x(1 - overall control efficiency) for each material], see \* note below;
- g. the updated rolling, 12-month summation of usage and emissions for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- h. the updated rolling, 12-month summation of usage and emissions for total combined HAPs, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* The thermal oxidizer overall control efficiency only applies to emissions units P005 and P017 where the overall control efficiency is determined from the most recent stack test that demonstrated compliance.

- (8) The permittee shall maintain and utilize the monitoring plan for the total enclosure in accordance with 40 CFR 60.744(h). Any revisions to the total enclosure monitoring plan shall be submitted to the Cleveland Division of Air Quality (CDAQ) for approval.
- (9) As specified in 40 CFR 60.744(k), the permittee shall maintain records of the measurements and calculations required in 40 CFR 60.743 and 60.744 for at least 2 years following the date of the measurements and calculations.
- (10) The permit to install for this emissions unit (P017) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hours maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

Pollutant: Toluene

TLV ( $\mu\text{g}/\text{m}^3$ ): 188,405

Maximum Hourly Emission Rate (lbs/hr): 1.02

Predicted 1-Hour Maximum Ground-Level Concentration ( $\mu\text{g}/\text{m}^3$ ): 2.81

MAGLC ( $\mu\text{g}/\text{m}^3$ ): 4,486

- (11) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used (waste organic liquids and solids), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Government Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- (12) If the permittee determines that the "Air Toxics Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
- (13) The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the "Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for change.

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 eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) As specified in 40 CFR 60.747(f), (g), and (h) the permittee shall submit the following:
  - a. all periods during actual mixing or coating operations when a required monitoring device (if any) was malfunctioning or not operating; and,
  - b. all periods during actual mixing or coating operations when the control device was malfunctioning or not operating.

These written reports shall be submitted to the CDAQ within 30 days of the occurrence of the deviation and these records shall be retained for at least two years.

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. all exceedances of the rolling 12-month emission limitation for VOC.
    - ii. As specified in 40 CFR 60.747(d)(4), all 3-hour periods (during actual coating operations) for the thermal oxidizer temperature monitoring when the temperature is more than 50 degrees Fahrenheit (28 degrees Celsius) below the temperature specified in c)(1); and
    - iii. As specified in 40 CFR 60.747(d)(6), all 3-hour periods (during actual coating operations) for the permanent total enclosure monitoring readings that vary by 5 percent or more from the operating parameters established in the approved total enclosure monitoring plan, identified in d)(8) of this permit.
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

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

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

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

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions shall not exceed 1.70 lbs/hr from coatings.

Applicable Compliance Method:

Compliance may be demonstrated in accordance with the record keeping requirements contained in section d)(1) of this permit. U.S. EPA Method 24 shall be used to determine the VOC content for each coating. If it is demonstrated to the satisfaction of the Director that each coating formulation data is equivalent to Method 24 results, formulation data based on weight percentage of VOC components in the coating may be used. In the event of any inconsistency between a Method 24 test and the facility's formulation data, the Method 24 test will govern.

If required, compliance with the VOC emission limitation shall be determined through emission testing conducted in accordance with US EPA Method 25 or 25A of 40 CFR Part 60, Appendix A, or any US EPA approved alternative testing method.

b. Emission Limitation:

VOC emissions shall not exceed 7.45 TPY from coatings.

Applicable Compliance Method:

Compliance shall be demonstrated on a monthly basis by summing the monthly VOC emissions as recorded in d)(2) above from this emissions unit during the most recent 12 calendar months of operation.

c. Emission Limitation:

VOC emissions shall not exceed 0.2 TPY VOC from cleanup.

Applicable Compliance Method:

Compliance shall be demonstrated on a monthly basis by summing the monthly VOC emissions as recorded in d)(2) above from this emissions unit during the most recent 12 calendar months of operation.

d. Emission Limitation:

95 %, by weight control (destruction) efficiency

99.5 %, by weight capture efficiency for VOC

Applicable Compliance Method:

Compliance with the control and capture efficiency shall be determined in accordance with the test methods and procedures specified in f)(2) and (3) of these terms and conditions or as specified by 40 CFR 60.743.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit as specified in 40 CFR 60.745 and in accordance with the following requirements:

- a. The emission testing shall be conducted within 6 months prior to expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the capture and destruction efficiency limitation for VOC emissions and the allowable hourly VOC mass rate of emissions.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) and the destruction efficiency:

Methods 1 through 4 - 40 CFR Part 60, Appendix A.

Method 25 of 40 CFR Part 60, Appendix A – Total Gaseous Non-methane Organic Emissions, or;

Method 25A of 40 CFR Part 60, Appendix A – Total Gaseous Organic Concentration (Flame Ionization)

Method 204 of 40 CFR Part 51, Appendix M - Permanent or Temporary Total Enclosure (TTE) for Determining Capture Efficiency

The average values of the monitored parameters shall be measured at least every 15 minutes and averaged over the period of the performance test and shall be submitted with the results of all performance tests, as specified in 40 CFR 60.747(a).

The destruction efficiency (i.e., the percent reduction in mass emissions between the inlet and the outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10.

Formulation data from the manufacturer or, if required, Method 24, shall be used to determine VOC contents of the coatings.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods for the determination of capture efficiency in accordance with the U.S. EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995., may be used with prior approval from the CDAQ.

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the CDAQ. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to CDAQ. 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 CDAQ's refusal to accept the results of the emission test(s).
- f. Personnel from the CDAQ shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the CDAQ 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 CDAQ.

g) Miscellaneous Requirements

- (1) A performance test was conducted on this emissions unit (and P005 10/4/2011 & 10/5/2011) to determine the capture efficiency of the permanent enclosure (U.S. EPA Method 204) and the destruction efficiency (U.S. EPA Method 25) of the thermal oxidizer. Test results determined that the thermal oxidizer achieved an average destruction efficiency of 96.12% at an operating temperature of 1440 degrees

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Fahrenheit and a corresponding average hourly VOC emission rate of 0.56 pounds VOC/hour from the oxidizer. PTI 13-04333 issued 8/26/04 previously identified a VOC emission destruction efficiency requirement of at least 98%, by weight under Best Available Technology (BAT) OAC rule 3745-31-05(A)(3). This destruction efficiency was originally established to comply with NSPS Subpart VVV while both P005 and P017 were tested simultaneously.

During the 10/4/2011 & 10/5/2011 performance tests, emissions units P005 and P017 were tested independently of one another. It is believed that due to the lower amount of VOC loading to the thermal oxidizer, that the destruction efficiency of 98%, by weight was unattainable for P017. As a result, Von Roll has requested that the thermal oxidizer's destruction efficiency requirement under BAT for P017, be lowered to 95%, by weight to align with the requirements of Subpart VVV. This request was found to be acceptable by CDAQ and the requested changes have been incorporated into this renewal FEPTIO.

According to 40 CFR 60.742(b)(2), "each owner or operator of an affected facility shall...install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device that is at least 95 percent efficient."

- (2) This emissions unit was installed on 10/1/2004.

**3. P018, Mixing Storage**

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

Mixing Storage Room

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

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

a. None.

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

a. b)(1)a. and d)(2)

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(D)(1)(b)	See d)(2) and Section B.
b.	OAC Rule 3745-21-07(M)	See b)(2)a. below.

(2) Additional Terms and Conditions

a. Only mixing occurs with no chemical reaction; therefore the requirements of OAC rule 3745-21-07(M) do not apply.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for the mixing storage:

- a. the name and identification number of each coating material mixed/stored;
- b. the total amount, in tons, of all coating material mixed/stored;
- c. the total VOC emissions from all coatings mixed/stored, in pounds, determined by using the following formula:

$$\text{lbs VOC/month} = 30 \text{ lbs VOC/ton material} \times \text{tons material/month}$$

NOTE: VOC emissions shall be determined for the purposes of the annual Fee Emissions Report (FER).

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

- a. the name and identification number of each HAP containing material mixed/stored;
- b. the individual HAP content for each HAP, in pounds of individual HAP per pound of VOC;
- c. the amount, in tons of each HAP containing material mixed/stored;
- d. the total individual HAP usage for each HAP from all HAP containing materials, in pounds or tons per month as determined from the following equation using the emission factor from AP-42 Table 6.4-1:

$$\text{lb HAP/lb VOC} * 30 \text{ lbs VOC/ton material} * \text{tons material/month} = \text{lbs HAP/month}$$

- e. the total combined HAP usage and emissions from all HAP containing materials, in pounds or tons per month [the sum of all individual HAP emissions from d)(2)d.];
- f. the updated rolling, 12-month summation of usage and emissions for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- g. the updated rolling, 12-month summation of usage and emissions for total combined HAPs, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

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 eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

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- (2) The permittee shall include in the annual PER information that identifies the total VOC emissions from all coating materials from this emissions unit for the previous calendar year.
  - (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
- (1) Formulation data or U.S. EPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the VOC content of the coatings/adhesives and cleanup materials. The CDAQ may require that U.S. EPA Method 24 be used to determine the VOC content of the coatings/adhesives and cleanup materials. If an owner or operator determines that Method 24 cannot be used for a particular coating/adhesive or cleanup material, the permittee shall so notify the administrator of the U.S. EPA and shall use formulation data for that coating, adhesive, or cleanup material to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.
- g) Miscellaneous Requirements
- (1) This emissions unit was installed on 2/1/1972.

**4. Emissions Unit Group -Mica Coating: P001,P003,P011,P012,P015,P016,P022,**

EU ID	Operations, Property and/or Equipment Description
P001	Mica Coating Line - Roll Coater #42
P003	Mica Coating Line #36 Davis Machine Equipped with an Infrared Drier
P011	Mica Hand Coating Line #4 Equipped with a Drying Oven
P012	Mica Coating Laminator #211 Equipped with an Infrared Oven
P015	Mica Hand Roller Coating Line M-5
P016	Mica Hand Roller Coating Line M-7
P022	Hand Coating Mica Line with Steam Table

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(D)(1)(b)	See b)(1)b. below and Section B.
b.	OAC Rule 3745-21-09 (NN)(2)	VOC emissions shall not exceed 5 tons per year (TPY) from all coatings and clean up materials for each emissions unit.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

- a. the name and identification number of each coating employed;
- b. the VOC content of each coating employed, in pounds per gallon, as applied;
- c. the number of gallons of each coating employed; and
- d. the total VOC emissions from all coatings employed, in pounds [i.e., the summation of (b x c) for each coating employed].

- (2) The permittee shall collect and record the following information for each month for each emissions unit:

- a. the company identification of each cleanup material employed;
- b. the number of gallons of each cleanup material employed;
- c. the amount of cleanup material disposed off-site, in gallons;
- d. the VOC content of each cleanup material employed, in pounds per gallon; and
- e. the total VOC emissions from all cleanup materials employed [i.e., summation of [(b - c)\*d] for each clean up material employed], in pounds per month.

- (3) The permittee shall collect and record the following information each month for each emissions unit including a rolling, 12-month summation of HAP emissions:

- a. the name and identification number of each HAP containing material employed;
- b. the individual HAP content for each HAP, in pounds of individual HAP per gallon;
- c. the total combined HAP content, in pounds of combined HAPs per gallon [sum all the individual HAP contents from (b)];
- d. the number of gallons of each HAP containing material employed;
- e. the total individual HAP usage and emissions for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b) times (d) for each material];
- f. the total combined HAP usage and emissions from all HAP containing materials, in pounds or tons per month [the sum of (c) times (d) for each material];

- g. the updated rolling, 12-month summation of usage and emissions for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- h. the updated rolling, 12-month summation of usage and emissions for total combined HAPs, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

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 eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall include in the annual PER, information that identifies the total VOC emissions from coatings and clean up materials from this emissions unit for the previous calendar year.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

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

VOC emissions shall not exceed 5 TPY for each emissions unit.

Applicable Compliance Method:

Compliance shall be determined from the monitoring and/or recordkeeping requirements and reporting in d)(1), d)(2) and e)(2).
- (2) Formulation data or U.S. EPA Method 24 (40 CFR Part 60, Appendix A) shall be used to determine the VOC content of the coatings/adhesives and cleanup materials. The CDAQ may require that U.S. EPA Method 24 be used to determine the VOC content of the coatings/adhesives and cleanup materials. If an owner or operator determines that Method 24 cannot be used for a particular coating/adhesive or cleanup material, the permittee shall so notify the administrator of the U.S. EPA and shall use formulation data for that coating, adhesive, or cleanup material to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.

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g) Miscellaneous Requirements

<b>Emissions Units</b>	<b>Installation Date</b>
P001 and P003	1/1/1970
P011 and P012	2/22/1922
P015, P016, and P022	2/1/1972