



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

Certified Mail

4/25/2016

Dennis Wilson  
 Covestro LLC  
 1111 ONeill Drive SE  
 Hebron, OH 43025

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0145020221  
 Permit Number: P0118987  
 Permit Type: Renewal  
 County: Licking

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**
- **What should you do if you notice a spill or environmental emergency?**

**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.

## **What should you do if you notice a spill or environmental emergency?**

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Central District Office at (614)728-3778 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: Ohio EPA-CDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Covestro LLC**

Facility ID:	0145020221
Permit Number:	P0118987
Permit Type:	Renewal
Issued:	4/25/2016
Effective:	4/25/2016
Expiration:	4/25/2026





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

for  
Covestro LLC

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**Final Permit-to-Install and Operate**  
Covestro LLC  
**Permit Number:** P0118987  
**Facility ID:** 0145020221  
**Effective Date:** 4/25/2016

## Authorization

Facility ID: 0145020221  
Application Number(s): A0052934  
Permit Number: P0118987  
Permit Description: Renewal PTIO for plastic extruding lines.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 4/25/2016  
Effective Date: 4/25/2016  
Expiration Date: 4/25/2026  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Covestro LLC  
1111 O'Neill Drive SE  
Hebron, OH 43025

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

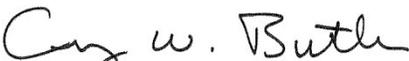
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0118987  
 Permit Description: Renewal PTIO for plastic extruding lines.

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>P031</b>
Company Equipment ID:	Thermoplastic compounding extruder screw cleaner
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable

**Group Name: Extruders**

<b>Emissions Unit ID:</b>	<b>P022</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #1
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P023</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #2
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P024</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #3
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P027</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #6
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P028</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #7
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P029</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #8
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P030</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #9
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P034</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #4
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P035</b>
Company Equipment ID:	Thermoplastic compounding extruder - line #10
Superseded Permit Number:	P0112680
General Permit Category and Type:	Not Applicable



<b>Emissions Unit ID:</b>	<b>P041</b>
Company Equipment ID:	KKMC 32
Superseded Permit Number:	P0112680
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P042</b>
Company Equipment ID:	KKMC 31
Superseded Permit Number:	P0112680
General Permit Category andType:	Not Applicable

**Group Name: Rail unload systems**

<b>Emissions Unit ID:</b>	<b>P038</b>
Company Equipment ID:	north rail unload system
Superseded Permit Number:	P0083732
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P039</b>
Company Equipment ID:	south rail unload system
Superseded Permit Number:	P0083732
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P040</b>
Company Equipment ID:	#3 rail unload system
Superseded Permit Number:	P0083732
General Permit Category andType:	Not Applicable

**Group Name: Small Sample CC Extruders**

<b>Emissions Unit ID:</b>	<b>P043</b>
Company Equipment ID:	CCC#1
Superseded Permit Number:	P0106206
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P044</b>
Company Equipment ID:	CCC#2
Superseded Permit Number:	P0106206
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P045</b>
Company Equipment ID:	CCC#3
Superseded Permit Number:	P0106206
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P046</b>
Company Equipment ID:	CCC#4
Superseded Permit Number:	P0106206
General Permit Category andType:	Not Applicable



**Final Permit-to-Install and Operate**  
Covestro LLC  
**Permit Number:** P0118987  
**Facility ID:** 0145020221  
**Effective Date:** 4/25/2016

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

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

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

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

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



**Final Permit-to-Install and Operate**  
Covestro LLC  
**Permit Number:** P0118987  
**Facility ID:** 0145020221  
**Effective Date:** 4/25/2016

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



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

Covestro LLC

**Permit Number:** P0118987

**Facility ID:** 0145020221

**Effective Date:** 4/25/2016

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.



**Final Permit-to-Install and Operate**  
Covestro LLC  
**Permit Number:** P0118987  
**Facility ID:** 0145020221  
**Effective Date:** 4/25/2016

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

**1. P031, Thermoplastic compounding extruder screw cleaner**

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

thermoplastic compounding extruder screw cleaner furnace (Terms in this permit supercede those identified in PTI 01-12098 issued 2/5/08, PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)

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. See b)(2)d. and e.

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 paragraph 3745-31-05(A)(3), as effective 11/30/01 (PTI 01-12098 issued 2/5/08)	<p>Volatile organic compound (VOC) emissions shall not exceed 0.04 lb/hr and 0.2 ton/year.</p> <p>Particulate emissions (PE) shall not exceed 0.27 lb/hr and 1.2 tons/year.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See b)(2)a below.</p>
b.	OAC paragraph 3745-31-05(E)	See b)(2)b below.
c.	OAC rule 3745-17-07(A)(1)	The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-31-05(D) [Synthetic Minor to Avoid Major Source Status]	See Section b)(2)c.-d. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.
  - i. FEPTIO P0112680 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
  - ii. Emissions from this emission unit shall be vented to the secondary furnace chamber.
- c. VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 99.9 tons per rolling, 12-month period.
- d. The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title II of the Clean Air Act, from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling, 12-month period.

- e. The emission unit's 0.04 lb VOC/hour, 0.2 ton VOC/year, 0.27 lb PE/hour and 1.2 tons PE/year emission limitations are based on the emission unit's potential to emit vented through the secondary furnace chamber. Therefore, only the monitoring, record keeping or reporting requirements of the secondary chamber are necessary to ensure compliance with these emission limitations.
  
- c) **Operational Restrictions**
  - (1) The combustion temperature within the secondary chamber when the emissions unit is in operation, shall not be less than 1400 degrees Fahrenheit.
  
- 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 secondary chamber when the emissions unit is in operation. Units shall be in degrees Fahrenheit. 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 all times during which the combustion temperature within the secondary chamber, when the emissions unit was in operation, dropped below 1400 degrees Fahrenheit.
  
- e) **Reporting Requirements**
  - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
    - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

all times during which the secondary chamber temperature does not comply with the temperature limitation specified above and the emissions unit is in operation.
    - b. the probable cause of each deviation (excursion);
    - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
    - d. the magnitude and duration of each deviation (excursion).

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

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

- (3) 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 permit evaluation report shall cover a reporting period of no more than twelve 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:

VOC emissions shall not exceed 0.04 lb/hour

Applicable Compliance Method:

Compliance may be demonstrated through the manufacturer's emission factor of 0.04 lb/hour (PTI application, 08/07/02).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

b. Emission Limitation:

VOC emissions shall not exceed 0.2 ton/year.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the pound per hour emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

c. Emission Limitation:

PE emissions shall not exceed 0.27 lb/hour.

Applicable Compliance Method:

Compliance may be demonstrated through the manufacturer's emission factor of 0.27 lb/hour (PTI application, 08/07/02).



If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

d. Emission Limitation:

PE emissions shall not exceed 1.2 tons/year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the pound per hour emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

e. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

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

f. Emission Limitation:

VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 99.9 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by manufactures emission factor and the record keeping found in Section d) for emission units P022, P023, P024, P026, P027, P028, P029, P030, P034, P035, P041, P042, P043, P044, P045, and P046.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests conducted in accordance with of 40 CFR Part 60, Appendix A Methods 1 through 4, 25 or 25A, and 18 or 40 CFR Part 63, Appendix A Method 320 and 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g. Emission Limitation:

The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title II of the Clean Air Act, from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling, 12-month period.



Applicable Compliance Method:

Compliance shall be demonstrated by manufactures emission factor and the record keeping found in Section d) for emission units P022, P023, P024, P026, P027,P028, P029, P030, P034, P035, P041, P042, P043, P044, P045, and P046.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests conducted in accordance with of 40 CFR Part 60, Appendix A Methods 1 through 4, 25 or 25A, and 18 or 40 CFR Part 63, Appendix A Method 320 and 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

- (1) None.

**2. Emissions Unit Group -Extruders:  
 P022,P023,P024,P027,P028,P029,P030,P034,P035,P038,P039,P040,P041,P042**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P022	thermoplastic compounding extruder line no. 1 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P023	thermoplastic compounding extruder line no. 2 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P024	thermoplastic compounding extruder line no. 3 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P027	thermoplastic compounding extruder line no. 6 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P028	thermoplastic compounding extruder line no. 7 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P029	thermoplastic compounding extruder line no. 8 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P030	thermoplastic compounding extruder line no. 9 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P034	thermoplastic compounding extruder line no. 4 vented to a thermal oxidizer and acid gas scrubber ((Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P035	thermoplastic compounding extruder line no. 10 vented to a thermal oxidizer and acid gas scrubber (Terms in this permit supercede those identified in PTI 01-08968 issued 7/12/05, PTI 01-08649 issued 12/05/02 and PTI 01-08258 issued 03/15/01)
P041	Thermoplastic compounding extruder line KKMC32 consisting of a ASK-40 Mega compunder extruder, water bath, and pelletizer. Modified
P042	Thermoplastic compounding extruder line No. 5 consisting of a ZSK Mega extruder, water bath, and Gala pelletizer. Modified

- 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. See b)(2)c.-f., c)(1-7) and d)(1-4)

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 paragraph 3745-31-05(A)(3), as effective 11/30/01	<p><u>For Emission Unit P022:</u> VOC emissions shall not exceed 0.08 lbs/hr and 0.34 tons per year.</p> <p><u>For Emission Unit P023:</u> VOC emissions shall not exceed 0.06 lbs/hr and 0.26 tons per year.</p> <p><u>For Emission Unit P024:</u> VOC emissions shall not exceed 0.04 lbs/hr and 0.17 tons per year.</p> <p><u>For Emission Unit P026:</u> VOC emissions shall not exceed 0.01 lbs/hr and 0.03 tons per year.</p> <p><u>For Emission Unit P027:</u> VOC emissions shall not exceed 0.09 lbs/hr and 0.39 tons per year.</p> <p><u>For Emission Unit P028:</u> VOC emissions shall not exceed 0.13 lbs/hr and 0.59 tons per year.</p> <p><u>For Emission Unit P029 and P030:</u> VOC emissions shall not exceed 0.21 lbs/hr and 0.94 tons per year.</p> <p><u>For Emission Unit P034:</u> VOC emissions shall not exceed 0.09 lbs/hr and 0.39 tons per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<u>For Emission Unit P035:</u> VOC emissions shall not exceed 0.19 lbs/hr and 0.84 tons per year. <u>For Emission Unit P041:</u> VOC emissions shall not exceed 0.05 lbs/hr and 0.21 tons per year.  <u>For Emission Unit P042:</u> VOC emissions shall not exceed 0.02 lbs/hr and 0.10 tons per year.  See b)(2)(a).
b.	3745-31-05(E), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) [Synthetic Minor to Avoid Major Source Status]	See Section b)(2)c.-f. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.
  - i. FEPTIO P0112680 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
  - ii. Emissions from this emission unit shall be vented to a recuperative thermal oxidizer (RTO) followed by an acid gas scrubber (AGS)

- c. VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 99.9 tons per rolling, 12-month period.
- d. The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title II of the Clean Air Act, from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling, 12-month period.
- e. Emissions from this emission unit shall be vented to a recuperative thermal oxidizer (RTO) followed by an acid gas scrubber (AGS).
- f. The maximum process weight rates of the following emissions units shall not exceed the following values:

Emissions unit ID	Maximum Process Weight Rate (lb/hr)
P022	4,000
P023	3,300
P024	2,000
P026	350
P027	5,000
P028	7,000
P029	12,000
P030	12,000
P034	5,000
P035	10,000
P041	2,500
P042	1,200

c) Operational Restrictions

- (1) The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.
- (2) The pressure drop across the scrubber shall be continuously maintained within the range of 0.5-3.0 inches of liquid at all times while the emissions unit is in operation.
- (3) The scrubber liquid flow rate shall be continuously maintained within the range of 85-350 gallons per minute at all times while the emissions unit is in operation.
- (4) The pH of the scrubber liquor shall be maintained within the range of 7.5 to 9.0.
- (5) The permittee shall capture at least 85% of the emissions from this emissions unit and vent them to the recuperative thermal oxidizer followed by the acid gas scrubber. The capture hood shall be in the proper capture position and shall be in operation at all times this emissions unit is operating.

(6) The RTO shall operate with a destruction efficiency of not less than 99%.

(7) The AGS shall operate with a control efficiency of not less than 95%.

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. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, 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:

- a. All 3-hour blocks of time during which the combustion temperature within the thermal oxidizer, when the emissions unit was in operation, dropped below 1500 degrees Fahrenheit; and
- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

(2) The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber liquid flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information:

- a. The pressure drop across the scrubber, in inches of water on an hourly basis;
- b. The scrubber liquid flow rate, in gallons per minute on an hourly basis; and
- c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

(3) The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pH of the scrubber liquor, on a continuous basis.

(4) The permittee shall maintain monthly records of the following information for emission units P022, P023, P024, P026, P027, P028, P029, P030, P034, P035, P041, P042, P043, P044, P045, and P046:

- a. the name and production rate of each product produced by each extruder;



- b. the name of each product produced and the associated emission factor for VOC and each HAP (1,3-butadiene, acrylonitrile, styrene, chlorobenzene), in pounds per 1000 pounds of product, from each extruder;
- c. the emission rate of VOC and each individual HAP (1,3-butadiene, acrylonitrile, styrene, chlorobenzene), in pounds, from each extruder;

The total emission rate shall be quantified by summing the emission rate from each extruder. The emissions from each extruder shall be determined by summing stack emissions, for emission units P023, P027, P029, P030, and P034, with the stack and fugitive emissions, for emission units P022, P024, P026, P028, P035, P041, P042, P043, P044, P045, and P046. Emissions from emissions units P043, P044, P045, and P046 shall be determined as prescribed in PTIO P0106206. Stack emissions from P022, P023, P024, P026, P027, P028, P029, P030, P033, P035, P041, and P042 shall be determined by multiplying the production rate by the appropriate stack emission factor\* by the control efficiency (1.0 - 0.99) established during the most recent stack test. Fugitive emissions from the extruders shall be determined by multiplying the production rate by the appropriate fugitive emission factor\*.

\*The permittee shall use the following worst case emission factors unless product specific emission factors are available and approved by the Central District Office:

VOC	=1.787 lbs/1000 lbs ABS-Lustran throughput (Testing, 8/14/00 thru 8/16/00); (stack)
	= 0.139 lb/1000 lbs ABS-Lustran throughput (Testing, 8/14/00 thru 8/16/00); (fugitive)
Styrene	= 1.097 lbs/1000 lbs ABS-Lustran throughput (Testing, 8/14/00); (stack)
	= 0.085 lb/1000 lbs ABS-Lustran throughput (Testing, 8/14/00); (fugitive)
1,3 Butadiene	= 0.083 lb/1000 lbs ABS - Lustran throughput (Testing, 5/31/00); (stack)
	= 0.006 lb/1000 lbs ABS - Lustran throughput (Testing, 5/31/00); (fugitive)
Acrylonitrile	= 0.247 lb/1000 lbs ABS - Lustran throughput (Testing, 8/16/00); (stack)
	= 0.019 lb/1000 lbs ABS - Lustran throughput (Testing, 8/16/00); (fugitive)
Chlorobenzene	= 0.213 lb/1000 lbs PC-Makrolon throughput (Testing, 5/31/00); (stack)

= 0.017 lb/1000 lbs PC-Makrolon throughput (Testing, 5/31/00);  
(fugitive)

Capture and control efficiency:

Capture efficiency at die face = 85% (based on testing witnessed by Ohio EPA 12/8/00)

Control equipment (RTO) = 99% destruction efficiency of VOC and any HAP (stack test conducted 04/22/02)

- d. the facility-wide emission rate of VOC, each individual HAP (1,3-butadiene, acrylonitrile, styrene, chlorobenzene) and combined HAPs, in tons; and
  - e. the facility-wide rolling, 12-month summation of the emission rate of VOC, each
  - f. individual HAP (1,3-butadiene, acrylonitrile, styrene, chlorobenzene) and combined HAPs, in tons.
- (5) Permit to install 01-08649 issued 12/05/02 for emission units P022 thru P031 was evaluated based on the actual materials and the design parameters of the emission unit and facility'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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m<sup>3</sup>): 85

Maximum Hourly Emission Rate (lbs/hr): 2.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 111.5

MAGLC (ug/m<sup>3</sup>): 2024

- (6) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and

BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

- 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.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer did not comply with the temperature limitation specified above;
  - ii. All periods of time during which the following scrubber parameters were not maintained at or above the required levels:
    - (a) The static pressure drop across the scrubber; and
    - (b) The scrubber liquid flow rate.
  - iii. pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.
  - iv. The VOC, individual HAP or combined HAPs rolling, 12-month emission limitations. The permittee shall also submit quarterly deviation reports showing any exceedances of the VOC and/or HAP emission factors (pounds of pollutant per 1000 pounds of product). These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.
- 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).

The permittee shall also submit quarterly summaries which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

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

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

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) 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 section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P033, P035, P041 and P042 shall not exceed 0.08, 0.06, 0.04, 0.01, 0.09, 0.13, 0.21, 0.21, 0.09, 0.19, 0.05, and 0.02 pounds per hour respectively.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping found in Section d)(4) above.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests conducted in accordance with of 40 CFR Part 60, Appendix A Methods 1 through 4, 25 or 25A, and 18 or 40 CFR Part 63, Appendix A Method 320 and 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.



b. Emission Limitation:

VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P035, P041 and P042 shall not exceed 0.34, 0.26, 0.17, 0.03, 0.39, 0.59, 0.94, 0.94, 0.39, 0.84, 0.21, and 0.10 tons per year respectively.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping found in Section d)(4) above.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests conducted in accordance with of 40 CFR Part 60, Appendix A Methods 1 through 4, 25 or 25A, and 18 or 40 CFR Part 63, Appendix A Method 320 and 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 99.9 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping found in Section d)(4) above.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests conducted in accordance with of 40 CFR Part 60, Appendix A Methods 1 through 4, 25 or 25A, and 18 or 40 CFR Part 63, Appendix A Method 320 and 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitation:

The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title II of the Clean Air Act, from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping found in Section d)(4) above.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests conducted in accordance with of 40 CFR Part 60, Appendix A Methods 1 through 4, 25 or 25A, and 18 or 40 CFR Part 63,



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

Covestro LLC

**Permit Number:** P0118987

**Facility ID:** 0145020221

**Effective Date:** 4/25/2016

Appendix A Method 320 and 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

- (1) None.

**3. Emissions Unit Group -Small Sample CC Extruders: P043,P044,P045,P046,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P043	ZSK-25 Extruder
P044	ZSK-25 Extruder
P045	ZSK-26 Extruder
P046	ZSK-26

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. See d)(1)f. and e)(4)

(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. See b)(1)c., b)(2)g. and h, d)(1)d. and e., and e)(2)a.i.

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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile organic compound (VOC) emissions shall not exceed 0.01 lbs/hour and 0.04 tons/year.  Styrene emissions shall not exceed 0.005 lb/hour and 0.02 tons/year.  See b)(2)a, and d - f below.  The requirements of this rule also include compliance with requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)b. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D) [Synthetic Minor to Avoid Major Source Status]	See b)(2)g - h below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.
  - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than ten tons per year.
- c. The emission unit's 0.006 lb VOC/hour, 0.02 ton VOC/year, 0.003 lb Styrene/hour and 0.01 ton Styrene/year emission limitations are based on the emission unit's potential to emit vented through the below referenced control equipment. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- d. Emissions from this emission unit shall be vented to a carbon adsorber.
- e. The carbon adsorber shall be operated and maintained according to manufacturer's specifications and recommendations.
- f. The maximum process weight rate of the emission unit shall not exceed 250 lb/hour.
- g. VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 99.9 tons per rolling, 12-month period.



- h. The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title II of the Clean Air Act, from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P035, P041, P042, P043, P044, P045, and P046 combined shall not exceed 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling, 12-month period.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall maintain monthly records of the following information for emission units P022, P023, P024, P026, P027, P028, P029, P030, P033, P034, P035, P041, P042, P043, P044, P045, and P046.
    - a. the name and production rate of each product produced by each extruder;
    - b. the name of each product produced and the associated emission factor for VOC and each HAP ( 1,3-butadiene, acrylonitrile, styrene, chlorobenzene, acrylonitrile, and chlorobenzene), in pounds per 1000 pounds of product, from each extruder;
    - c. the emission rate of VOC and each individual HAP ( 1,3-butadiene, acrylonitrile, styrene, and chlorobenzene), in pounds, from each extruder;

The total emission rate shall be quantified by summing the emission rate from each extruder. The emissions from each extruder shall be determined by summing stack emissions, for emission units P023, P027, P029, P030, and P034, with the stack and fugitive emissions for emission units P022, P024, P026, P028, P033, P035, P041, P042, P043, P044, P045, and P046. Emissions from emissions units P022, P023, P024, P026, P027, P028, P029, P030, P033, P034, P035, P041, and P042 shall be determined as prescribed in PTI No. 01-12098. Stack emissions from P043, P044, P045, and P046 shall be determined by multiplying the production rate by the appropriate stack emission factor\* by the control efficiency (1.0 - 0.95). Fugitive emissions from the extruders shall be determined by multiplying the production rate by the appropriate fugitive emission factor\*.

\*The permittee shall use the following worst case emission factors unless product specific emission factors are available and approved by the Central District Office:

VOC	= 0.465 lbs/1000 lbs throughput (Testing, 2003); (stack) = 0.017 lb/1000 lbs throughput (Testing, 2003); (fugitive)
Styrene	= 0.224 lbs/1000 lbs throughput (Testing, Oct. 2007); (stack) = 0.008 lb/1000 lbs throughput (Testing, Oct. 2007); (fugitive)



- 1,3 Butadiene = 0.002 lb/1000 lbs throughput (Testing, Oct. 2007);  
(stack)  
= 0.00007 lb/1000 lbs throughput (Testing, Oct. 2007);  
(fugitive)
- Acrylonitrile = 0.020 lb/1000 lbs throughput (Testing, Oct. 2007);  
(stack)  
= 0.001 lb/1000 lbs throughput (Testing, Oct. 2007);  
(fugitive)
- Chlorobenzene = 0.219 lb/1000 lbs throughput (Testing, Oct. 2007);  
(stack)  
= 0.008 lb/1000 lbs throughput (Testing, Oct. 2007);  
(fugitive)

Capture and control efficiency:

Capture efficiency at die face = 85% (based on testing witnessed by Ohio EPA 12/8/00)

Control equipment (carbon adsorber) = 95% control efficiency of VOC and any HAP (based on manufacturer specifications)

- d. the facility-wide emission rate of VOC, each individual HAP (1,3-butadiene, acrylonitrile, styrene, chlorobenzene) and combined HAPs, in tons; and
- e. the facility-wide rolling, 12-month summation of the emission rate of VOC, each individual HAP (1,3-butadiene, acrylonitrile, styrene, chlorobenzene) and combined HAPs, in tons.
- f. 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 per year. OAC Chapter 3745-31 requires permittees 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 per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the

potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

- i. any deviation from the VOC, individual HAP or combined HAPs rolling, 12-month emission limitations;
  - ii. any exceedances of the VOC and/or HAP emission factors (pounds of pollutant per 1000 pounds of product); and
  - iii. any downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
- b. actions that were taken to achieve compliance.
  - c. the probable cause of each deviation (excursion);
  - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - e. the magnitude and duration of each deviation (excursion).

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

- (3) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).
- (4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

VOC emissions from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P035, P041, and P042 combined shall not exceed 99.9 tons per rolling, 12-month period.



Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping found in Section d) above.

b. Emission Limitation:

The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title II of the Clean Air Act, from emission units P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P035, P041, and P042 combined shall not exceed 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping found in Section d) above.

c. Emission Limitation:

VOC emissions shall not exceed 0.01 lbs/hour.

Applicable Compliance Method:

Compliance may be demonstrated by summing the stack and fugitive emissions. The stack emissions shall be determined by multiplying the emission unit's maximum capacity of 250 lbs product produced/hour by the stack emission factor of 0.465 lbs VOC/1000 lbs product (Testing, 2003 ) by the control efficiency (1.0-0.95). The fugitive emissions shall be determined by multiplying the emission unit's maximum capacity of 250 lbs product produced/hour by the fugitive emission factor of 0.017 lbs VOC/1000 lbs of product (Testing, Oct. 2007).

If required the following test method(s) shall be employed to demonstrate compliance with the allowable emission limitation(s):

40 CFR Part 60, Appendix A Methods 1 through 4, and 25 or 25A, or 40 CFR Part 63, Appendix A Method 320. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The capture efficiency at the die face 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.)

d. Emission Limitation:

VOC emissions shall not exceed 0.04 tons/yr.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the pound per hour emission rate by 8760 hours/year and dividing by 2000 lbs/ton.

e. Emission Limitation:

Styrene emissions shall not exceed 0.005 lb/hour.

Applicable Compliance Method:

Compliance may be demonstrated by summing the stack and fugitive emissions. The stack emissions shall be determined by multiplying the emission unit's maximum capacity of 250 lbs product produced/hour by the stack emission factor of 0.224 lbs Styrene/1000 lbs product (Testing, Oct. 2007) by the control efficiency (1.0-0.95). The fugitive emissions shall be determined by multiplying the emission unit's maximum capacity of 250 lbs product produced/hour by the fugitive emission factor of 0.008 lbs Styrene/1000 lbs of product (Testing, Oct. 2007).

If required the following test method(s) shall be employed to demonstrate compliance with the allowable emission limitation(s):

40 CFR Part 60, Appendix A Methods 1 through 4, and 18, or 40 CFR Part 63, Appendix A Method 320. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The capture efficiency at the die face 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.)

f. Emission Limitation:

Styrene emissions shall not exceed 0.02 tons/year.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the pound per hour emission rate by 8760 hours/year and dividing by 2000 lbs/ton.



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

Covestro LLC

**Permit Number:** P0118987

**Facility ID:** 0145020221

**Effective Date:** 4/25/2016

If required, the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

g) Miscellaneous Requirements

- (1) None.

4. Emissions Unit Group - Rail unload systems: P038, P039, P040

EU ID	Operations, Property and/or Equipment Description
P038	North rail system unloading with fabric filter
P039	South rail system unloading with fabric filter
P040	No. 3 rail system unloading with fabric filter

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) (From PTI No. 01-08951)	<p><u>For P038 and P039</u>            Particulate emissions (PE) from the fabric filter shall not exceed 0.62 pound per hour (lb/hr) and 2.7 tons per year (tons/yr).</p> <p><u>For P040</u>            Particulate emissions (PE) from the fabric filter shall not exceed 0.47 lb/hr and 2.0 tons/yr.</p> <p><u>For P038 and P039</u>            Fugitive PE shall not exceed 6.00 lbs/hr and 26.3 tons/yr.</p> <p><u>For P040</u>            Fugitive PE shall not exceed 4.5</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>lbs/hr and 19.7 tons/yr.</p> <p>There shall be no visible particulate emissions from the fabric filters serving these emissions units.</p> <p>Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a 3-minute average.</p> <p>See b)(2)b. and c. below</p>
b.	OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B)	See b)(2)a. below

(2) Additional Terms and Conditions

- a. Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit. Also, pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- b.
- c. The hourly stack PE emission limitation and annual stack PE emission limitation for this emissions unit were established to reflect the potentials to emit as vented through the fabric filter. The hourly fugitive PE emission limitation and annual fugitive PE emission limitation for this emissions unit were established to reflect the potentials to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these emission limitations.
- d.
- e. Reasonably available control measures shall be used to minimize fugitive particulate emissions to the extent possible with good engineering design.
- f.
- c) Operational Restrictions
  - (1) The permittee shall vent all captured particulate emissions from this emissions unit to the fabric filter.
  - (2)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emissions incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
  - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
  - b. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
  - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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.

f) Testing Requirements

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

a. Emission Limitations:

Particulate emissions (PE) from the fabric filter shall not exceed 0.62 lb/hr for P038 and P039.

Applicable Compliance Method:

Compliance may be demonstrated multiplying the controlled emission factor of 0.000031 lbs PE per lb of material transferred (PTI application submitted 02/16/05) by the maximum loading rate of 10 tons per hour and by the conversion factor of 2000 lbs/ton.

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitations:

Particulate emissions (PE) from the fabric filter shall not exceed 0.47 lb/hr for P040.

Applicable Compliance Method:

Compliance may be demonstrated multiplying the controlled emission factor of 0.000031 lbs PE per lb of material transferred (PTI application submitted 02/16/05) by the maximum loading rate of 7.5 tons per hour and by the conversion factor of 2000 lbs/ton.

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

c. Emission Limitations:

PE from the fabric filter shall not exceed 2.7 tons/yr P038 and P039.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours of operation per year and dividing by 2000 to convert to ton(s). Therefore, compliance with the annual emission limitation shall be assumed if compliance with the hourly emission limitation is maintained.

d. Emission Limitations:

PE from the fabric filter shall not exceed 2.0 tons/yr for P040.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours of operation per year and dividing by 2000 to convert to ton(s). Therefore, compliance with the annual emission limitation shall be assumed if compliance with the hourly emission limitation is maintained.

e. Emission Limitations:

There shall be no visible particulate emissions from the fabric filter serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 22 set forth in "Appendix on Test methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

f. Emission Limitations:

Fugitive PE shall not exceed 6.00 lbs/hr for P038 and P039.

Applicable Compliance Method:

Compliance may be demonstrated multiplying the uncontrolled emission factor of 0.0003 lbs PE per lb of material transferred (PTI application submitted 02/16/05) by the maximum loading rate of 10 tons per hour and by the conversion factor of 2000 lbs/ton.

g. Emission Limitations:

Fugitive PE shall not exceed 4.50 lbs/hr for P040.

Applicable Compliance Method:

Compliance may be demonstrated multiplying the uncontrolled emission factor of 0.0003 lbs PE per lb of material transferred (PTI application submitted 02/16/05) by the maximum loading rate of 7.5 tons per hour and by the conversion factor of 2000 lbs/ton.



h. Emission Limitation:

Fugitive PE shall not exceed 26.3 tons/yr for P038 and P039.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours of operation per year and dividing by 2000 to convert to ton(s). Therefore, compliance with the annual emission limitation shall be assumed if compliance with the hourly emission limitation is maintained.

i. Emission Limitation:

Fugitive PE shall not exceed 19.7 tons/yr for P040.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours of operation per year and dividing by 2000 to convert to ton(s). Therefore, compliance with the annual emission limitation shall be assumed if compliance with the hourly emission limitation is maintained.

j. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 10 percent opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 9 set forth in "Appendix on Test methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such appendix existed on July 1, 1997.

g) Miscellaneous Requirements

- (1) None.