



7/3/2014

Certified Mail

Steve Cox
The Sawbrook Steel Castings Company
425 SHEPHERD AVENUE
Cincinnati, OH 45215

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1431260066
Permit Number: P0116616
Permit Type: Renewal
County: Hamilton

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

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

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: SWOAQA



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
The Sawbrook Steel Castings Company**

Facility ID:	1431260066
Permit Number:	P0116616
Permit Type:	Renewal
Issued:	7/3/2014
Effective:	7/3/2014
Expiration:	7/3/2019



Division of Air Pollution Control
Permit-to-Install and Operate
for
The Sawbrook Steel Castings Company

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit?	4
3. What records must I keep under this permit?	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application?	4
6. What happens to this permit if my project is delayed or I do not install or modify my source?	5
7. What reports must I submit under this permit?	5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	7
15. What happens if a portion of this permit is determined to be invalid?	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions	10
1. F007, Blast Room	11
2. F008, Lg Mold Mixer	19
3. F009, Core Room Air-Set Mold Making.....	27
4. P005, Shot Blast	36
5. P006, Medium Cleaning Line	42
6. P007, Castings Cleaning Small Line	48
7. P901, Electric Arc Furnace with Fabric Filter.....	54



Final Permit-to-Install and Operate
The Sawbrook Steel Castings Company
Permit Number: P0116616
Facility ID: 1431260066
Effective Date: 7/3/2014

Authorization

Facility ID: 1431260066
Application Number(s): A0050441
Permit Number: P0116616
Permit Description: FEPTIO renewal permit for a steel foundry.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 7/3/2014
Effective Date: 7/3/2014
Expiration Date: 7/3/2019
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

The Sawbrook Steel Castings Company
425 SHEPHERD AVE
Cincinnati, OH 45215

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

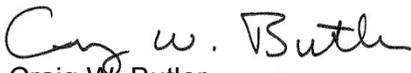
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0116616

Permit Description: FEPTIO renewal permit for a steel foundry.

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

Emissions Unit ID:	F007
Company Equipment ID:	Blast Room
Superseded Permit Number:	P0099547
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F008
Company Equipment ID:	Lg Mold Mixer
Superseded Permit Number:	P0107231
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F009
Company Equipment ID:	Core Room Air-Set Mold Making
Superseded Permit Number:	P0099555
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Shot Blast
Superseded Permit Number:	P0099548
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	Medium Cleaning Line
Superseded Permit Number:	P0099549
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	Castings Cleaning Small Line
Superseded Permit Number:	P0099550
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P901
Company Equipment ID:	Electric Arc Furnace with Fabric Filter
Superseded Permit Number:	P0099551
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
The Sawbrook Steel Castings Company
Permit Number: P0116616
Facility ID: 1431260066
Effective Date: 7/3/2014

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
The Sawbrook Steel Castings Company
Permit Number: P0116616
Facility ID: 1431260066
Effective Date: 7/3/2014

B. Facility-Wide Terms and Conditions



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) 2.
2. The Ohio EPA has determined that this facility may be subject to U.S. EPA standards for control of hazardous air pollutants (HAP), the National Emission Standards for Hazardous Air Pollutants (NESHAP), found in the Code of Federal Regulations, Title 40 Part 63. At this time the Ohio EPA is not accepting the delegating authority to enforce NESHAP standards for area sources. The requirements of this NESHAP, that are applicable to the area source(s) (for HAP) identified in this permit, shall be enforceable by U.S. EPA. Region 5. The complete requirements of the applicable rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.



Final Permit-to-Install and Operate
The Sawbrook Steel Castings Company
Permit Number: P0116616
Facility ID: 1431260066
Effective Date: 7/3/2014

C. Emissions Unit Terms and Conditions



1. F007, Blast Room

Operations, Property and/or Equipment Description:

Blast Room #1, abrasive cleaning of steel castings

- 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)b., c)(1), d)(1), e)(1), f)(1)b., and f)(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(A)(3)	Particulate emissions (PE) shall not exceed 1.07 pounds per hour.* Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 0.23 pound per hour* and 0.56 TPY. The requirements of this rule also include compliance with OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B), and 3745-31-05(D). * The hourly PE and PM10 emission limitations outlined above are based on the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D)	Particulate emissions (PE) shall not exceed 2.6 tons per year (TPY), based upon a rolling, 12-month summation of the monthly emissions. See c)(1).
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.
d.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions from any fugitive source shall not exceed 20 percent opacity as a three-minute average.
e.	OAC rule 3745-17-08(B)(5)	See b)(2)a.
f.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall use adequate containment methods during sand blasting or other similar operations.
- b. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitations, the use of a fabric filter, and the operational restriction.

c) Operational Restrictions

- (1) This emissions unit shall not exceed 4800 hours of operation per year, based upon a rolling, 12-month summation of the monthly operating hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the operating hours for each month;
 - b. the updated rolling, 12-month summation of the operating hours;
 - c. the total PE, in tons; and
 - d. the updated rolling, 12-month summation of the monthly PE, in tons.



- (2) The permittee shall collect and record the following information annually:
 - a. the total PM10 emissions, in tons.
- (3) The permittee shall properly operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted. This range is 1 inch of water to 7 inches of water effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

The permittee may request revisions to the pressure drop range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the pressure drop range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) The permittee shall perform daily 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 emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

The permittee may, upon receipt of written approval from Southwest Ohio Air Quality Agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

e) Reporting Requirements

(1) 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 PE as specified in b)(1)b.;
 - ii. all exceedances of the rolling, 12-month hours of operation restriction as specified in c)(1);
 - iii. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range; and
 - iv. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse.



- 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 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 submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
 - a. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(4):
 - i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - ii. 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
 - iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
 - b. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:
 - i. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - iii. each incident of deviation described in "e)(2)b.i." (above) where a prompt investigation was not conducted;



- iv. each incident of deviation described in "e)(2)b.i." where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - v. each incident of deviation described in "e)(2)b.i." where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (3) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- f) **Testing Requirements**
- (1) Compliance with the Emission 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:**

Particulate emissions (PE) shall not exceed 1.07 pounds per hour.

Applicable Compliance Method:

The hourly maximum potential emission rate for PE was calculated using the information submitted by the permittee in the PTI application for PTI 14-4185, issued on January 23, 1997, based on the following equations:

$$PE_{\text{fugitive}} = (15.5 \text{ lbs of PE/ton steel melted; EF submitted by permittee}) \times (2\% \text{ fugitive - not captured}) \times (20\% \text{ unsettled}) \times (5 \text{ tons steel melted/hr}) = 0.31 \text{ pound per hour fugitive.}$$

$$PE_{\text{stack}} = (15.5 \text{ lb of PE/ton steel melted; EF submitted by permittee}) \times (98\% \text{ captured}) \times (5 \text{ tons steel melted/hr}) \times (1 - 99\% \text{ control efficiency}) = 0.76 \text{ pound per hour stack.}$$



$$PE_{\text{total}} = (0.31 \text{ lb/hr}) + (0.76 \text{ lb/hr}) = 1.07 \text{ pounds per hour.}$$

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 Limitation:

Particulate emissions (PE) shall not exceed 2.6 TPY based on a rolling, 12-month summation.

Applicable Compliance Method:

The annual emission limitation for PE was calculated using the information submitted by the permittee in the PTI application for PTI 14-4185, issued on January 23, 1997, based on the following equation:

$$PE = (1.07 \text{ pounds of PE/hr; maximum potential}) \times (4800 \text{ hours/year allowable}) / (2000 \text{ pounds/ton}) = 2.6 \text{ TPY.}$$

Compliance with the rolling, 12-month emission limitation shall be determined by the record keeping requirements in d)(1).

c. Emission Limitations:

Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 0.23 pound per hour and 0.56 TPY.

Applicable Compliance Method:

The hourly and annual emission rates for PM10 were calculated using the information submitted by the permittee in the PTI application for PTI 14-4185, issued on January 23, 1997, based on the following equations:

$$PM10 = (1.07 \text{ lbs/hr allowable PE}) \times (21.6\% \text{ distribution of particles less than 10 microns; RACM Table 2.23-2}) = 0.23 \text{ pound per hour.}$$

$$PM10 = (2.6 \text{ TPY allowable PE}) \times (21.6\% \text{ distribution of particles less than 10 microns; RACM Table 2.23-2}) = 0.56 \text{ TPY.}$$

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 4 and 40 CFR Part 51, Appendix M, Method 201 or 201A.

d. Emission Limitations:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.



Visible particulate emissions from any fugitive source shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

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

Compliance with the limitation for visible emissions of fugitive dust shall be determined through visible emissions observations performed in accordance U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

- (2) Compliance with the operating hours limitation specified in c)(1) shall be determined by the record keeping requirements in d)(1).

g) Miscellaneous Requirements

- (1) None.



2. F008, Lg Mold Mixer

Operations, Property and/or Equipment Description:

Air-Set Sand Large Mold Mixer and Large Mold-Making, including a Fabric Filter Baghouse

- 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)(5).
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions shall not exceed 16.85 pounds per hour* and 27 tons per year (TPY).</p> <p>Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 0.44 pound per hour* and 0.70 ton per year (TPY).</p> <p>Particulate emissions (PE) shall not exceed 4.61 tons per year (TPY).</p> <p>The fabric filter serving this emissions unit shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the outlet.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>There shall be no visible emissions of fugitive dust from building egress points serving this emissions unit.</p> <p>See b)(2)a. and c)(1).</p> <p>*The hourly emission limitations outlined above are based on the emission unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.</p>
b.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)(3)	The emission limitations specified by this rule are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall employ reasonably available control measures to minimize or eliminate visible emissions of fugitive dust. In accordance with the permittee's application, the permittee has committed to utilize and maintain a fabric filter baghouse to ensure compliance with the above-mentioned applicable requirements.
- b. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, use of a fabric filter baghouse, and the sand throughput restriction.

c) Operational Restrictions

- (1) The maximum annual sand throughput for this emissions unit shall not exceed 46,080 tons per year.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in



accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted. This range is 2 inches of water to 8 inches of water effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

The permittee may request revisions to the pressure drop range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the pressure drop range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (2) The permittee shall perform daily 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 emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

The permittee may, upon receipt of written approval from Southwest Ohio Air Quality Agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

- (3) The permittee shall collect and record the following information annually:
 - a. the name and identification of each binder system for the mold sand used in this emissions unit;
 - b. the amount of each binder system used in this emissions unit, in pounds;
 - c. the amount of mold sand used in this emissions unit, in tons, determined by the binder system to sand mix ratio of 1:100 where the pounds of binder from "b." are multiplied by 100 pounds of sand, divided by 2000 pounds/ton;
 - d. the total emissions, in tons, of VOC calculated by the following equation:
$$E = (\text{total amount of mold sand used, in tons/year} \times 1.17 \text{ lbs VOC/ton of sand}^*) / 2000,$$

where E = Emissions Rate(tons per year);

*using the Ohio EPA and Ohio Cast Metals Association (OCMA) Memorandum of Understanding binder system emission factor for phenolic urethane no-bake resins, published 2/16/1998.
 - e. the total PE, in tons; and
 - f. the total PM10 emissions, in tons.
- (4) The permittee shall develop, implement, and maintain a preventive maintenance plan designed to minimize particulate emissions and ensure the compliance status of this emissions unit. The preventive maintenance plan and related records must be kept onsite and available for inspection during regular office hours.



- (5) 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 permit-to-install and operate (PTIO) 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 PTIO.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- a. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:
- i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - ii. 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
 - iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- b. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:
- i. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
 - iii. each incident of deviation described in "e)(1)b.i." (above) where a prompt investigation was not conducted;
 - iv. each incident of deviation described in "e)(1)b.i." where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and



- v. each incident of deviation described in "e)(1)b.i." where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (2) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- f) Testing Requirements
- (1) Compliance with the Emission 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:

Volatile organic compound (VOC) emissions shall not exceed 16.85 pounds per hour.

Applicable Compliance Method:

The hourly VOC emissions rate is based on this emissions unit's uncontrolled potential to emit. The hourly VOC emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05944, submitted on July 31, 2007:

$$E = \text{maximum sand processing capacity of } 14.4 \text{ tons/hour} \times 1.17 \text{ lbs VOC/ton of sand per the OhioEPA/OCMA binder system emissions factor for phenolic urethane no-bake resins, published 2/16/1998,}$$

where E = Emissions Rate(pounds per hour).
 - b. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 27 TPY.



Applicable Compliance Method:

Compliance with the annual VOC emissions limitation shall be determined by compliance with the sand throughput restriction specified in c)(1) and the record keeping requirements specified in d)(3).

c. Emission Limitation:

Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.44 pounds per hour.

Applicable Compliance Method:

The PM10 hourly emissions rate is based on this emissions unit's controlled potential to emit. The PM10 hourly emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-05944, submitted on July 31, 2007:

$E = \text{maximum sand processing capacity of 14.4 tons/hour} \times 0.54 \text{ lbs PM10/ton of sand per AP-42 Section 12.13, Table 12.13-2, dated 1/1995} \times (1 - 0.944, \text{ for control efficiency of baghouse});$

where E = Emissions Rate(pounds per hour).

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 4 and 40 CFR Part 51, Appendix M, Method 201 or 201A.

d. Emission Limitation:

Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.70 TPY.

Applicable Compliance Method:

The PM10 annual emissions rate is based on the maximum annual sand usage of the emissions unit. The PM10 annual emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-05944, submitted on July 31, 2007:

$E = \text{maximum sand processing capacity of 46080 tons/year} \times 0.54 \text{ lbs PM10/ton of sand per AP-42 Section 12.13, Table 12.13-2, dated 1/1995} \times (1 - 0.944, \text{ for control efficiency of baghouse})/(2000);$

where E = Emission Rate(tons per year).

Compliance with the annual PM10 emission limitation shall be determined by compliance with the sand throughput restriction specified in c)(1) and the record keeping requirements specified in d)(3).



e. Emission Limitation:

Particulate emissions (PE) shall not exceed 4.61 tons per year (TPY)

Applicable Compliance Method:

The PE annual emissions rate is based on the maximum annual sand usage of the emissions unit. The PE annual emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-05944, submitted on July 31, 2007:

$E = \text{maximum sand processing capacity of } 46080 \text{ tons/year} \times 0.2 \text{ lbs PE/ton of sand per AP-42 Section 12.10, Table 12.10-7, dated 1/1995, for sand handling with baghouse controls/(2000),}$

where E = Emission Rate(tons per year).

Compliance with the annual PE limitation shall be determined by compliance with the sand throughput restriction specified in c)(1) and the record keeping requirements specified in d)(3).

f. Emission Limitation:

The fabric filter serving this emissions unit shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

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).

g. Emission Limitations:

There shall be no visible particulate emissions from the outlet of the fabric filter.

There shall be no visible emissions of fugitive dust from building egress points serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible emission limitations 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"), as such appendix existed on July 1, 1997.

g) Miscellaneous Requirements

(1) None.



3. F009, Core Room Air-Set Mold Making

Operations, Property and/or Equipment Description:

Core Room Air-Set Mold Making

- 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)(5).
 - (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)	Volatile organic compound (VOC) emissions shall not exceed 2.46 pounds per hour* and 3.94 tons per year (TPY). Particulate emissions (PE) shall not exceed 0.42 pound per hour* and 0.68 ton per year (TPY). Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 0.06 pound per hour* and 0.10 ton per year (TPY). See b)(2)a., b)(2)b., b)(2)c., and c(1). The requirements of this rule also include compliance with OAC rule 3745-17-07(A).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		* The hourly emission limitations outlined above are based on the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)(3)	The emission limitations specified by this rule are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. There shall be no visible fugitive emissions from building egress points from this emissions unit.
- b. The permittee shall employ reasonably available control measures to minimize or eliminate visible emissions of fugitive dust. In accordance with the permittee's application, the permittee has committed to utilize and maintain a fabric filter to ensure compliance with the above-mentioned applicable requirements.
- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, use of a fabric filter and the sand throughput restriction.

c) Operational Restrictions

- (1) The maximum annual sand throughput for this emissions unit shall not exceed 6730 tons per year.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with



the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted. This range is 2 inches of water to 7 inches of water effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

The permittee may request revisions to the pressure drop range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the pressure drop range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (2) The permittee shall perform daily 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 emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

The permittee may, upon receipt of written approval from Southwest Ohio Air Quality Agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

- (3) The permittee shall collect and record the following information annually:
 - a. the name and identification of each binder system for the core sand used in this emissions unit;
 - b. the amount of each binder system used in this emissions unit, in pounds;
 - c. the amount of core sand used in this emissions unit, in tons, determined by the binder system to sand mix ratio of 1:100 where the pounds of binder from (b) are multiplied by 100 pounds of sand, divided by 2000 pounds/ton;
 - d. the total emissions, in tons, of VOC calculated by the following equation:
$$E = (\text{total amount of core sand used, in tons/year} \times 1.17 \text{ lbs VOC/ton of sand}^*)/2000,$$

where E = Emissions Rate(tons per year);

*using the Ohio EPA and Ohio Cast Metals Association (OCMA) Memorandum of Understanding binder system emission factor for phenolic urethane no-bake resins, published 2/16/1998.
 - e. the total PE, in tons; and
 - f. the total PM10 emissions, in tons.
- (4) The permittee shall develop, implement, and maintain a preventive maintenance plan designed to minimize particulate emissions and ensure the compliance status of this emissions unit. The preventive maintenance plan and related records must be kept onsite and available for inspection during regular office hours.



- (5) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install and operate 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 pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install and operate.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- a. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:
- i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - ii. 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
 - iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- b. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:
- i. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - iii. each incident of deviation described in "e)(1)b.i." (above) where a prompt investigation was not conducted;
 - iv. each incident of deviation described in "e)(1)b.i." where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and



- v. each incident of deviation described in "e)(1)b.i." where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (2) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- f) **Testing Requirements**
- (1) Compliance with the Emission 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:**

Volatile organic compound (VOC) emissions shall not exceed 2.46 pounds per hour.

Applicable Compliance Method:

The hourly VOC emissions rate is based on this emissions unit's uncontrolled potential to emit. The hourly VOC emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

$$E = \text{maximum sand processing capacity of } 2.10 \text{ tons/hour} \times 1.17 \text{ lbs VOC/ton of sand per the OhioEPA/OCMA binder system emissions factor for phenolic urethane no-bake resins, published 2/16/1998,}$$

where E = Emissions Rate(pounds per hour).
 - b. **Emission Limitation:**

Volatile organic compound (VOC) emissions shall not exceed 3.94 TPY.



Applicable Compliance Method:

Compliance with the annual VOC emission limitation shall be determined by compliance with the sand throughput restriction specified in c)(1) and the record keeping requirements specified in d)(3).

c. Emission Limitation:

Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.06 pound per hour.

Applicable Compliance Method:

The PM10 hourly emissions rate is based on this emissions unit's controlled potential to emit. The PM10 hourly emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

$E = \text{maximum sand processing capacity of } 2.10 \text{ tons/hour} \times 0.54 \text{ lb PM10/ton of sand per AP-42 Section 12.13, Table 12.13-2, dated 1/1995} \times (1 - 0.944, \text{ for control efficiency of baghouse});$

where E = Emissions Rate(pounds per hour).

d. Emission Limitation:

Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.10 TPY.

Applicable Compliance Method:

The PM10 annual emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

$E = \text{maximum sand processing capacity of } 6730 \text{ tons/year} \times 0.54 \text{ lb PM10/ton of sand per AP-42 Section 12.13, Table 12.13-2, dated 1/1995} \times (1 - 0.944, \text{ for control efficiency of baghouse}) / (2000);$

where E = Emissions Rate(tons per year).

Compliance with the annual PM10 emission limitation shall be determined by compliance with the sand throughput restriction specified in c)(1) and the record keeping requirements specified in d)(3).

e. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.42 pound per hour and 0.68 ton per year (TPY).



Applicable Compliance Method:

The hourly emission rate for PE is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

$E = \text{maximum sand processing capacity of } 2.10 \text{ tons/hour} \times 0.2 \text{ lb PE/ton of sand per AP-42 Section 12.10, Table 12.10-7, dated 1/1995, for sand handling with baghouse controls,}$

where $E = \text{Emissions Rate(lb/hour)}$.

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).

The annual emission rate for PE is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

$E = \text{maximum sand processing capacity of } 6730 \text{ tons/year} \times 0.2 \text{ lb PE/ton of sand per AP-42 Section 12.10, Table 12.10-7, dated 1/1995, for sand handling with baghouse controls}/(2000),$

where $E = \text{Emissions Rate(tons per year)}$.

Compliance with the annual PE limitation shall be determined by compliance with the sand throughput restriction specified in c)(1) and the record keeping requirements specified in d)(3).

f. Emission Limitation:

There shall be no visible fugitive emissions from building egress points from this emissions unit.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 22.

g. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.



Applicable Compliance Method:

If required, compliance with the visible emission limitation 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, 2002.

- g) Miscellaneous Requirements
 - (1) None.



4. P005, Shot Blast

Operations, Property and/or Equipment Description:

Large Cleaning Room Controlled with Fabric Filter (Tableblast 530A)

- 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 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.
c.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 8.8 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 2 to 6 inches of water.

The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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

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



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

- a. a description of the corrective action;
- b. the date corrective actions was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

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

- (2) The permittee shall perform daily 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 daily 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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

a. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:

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

b. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:

- i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
- ii. 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



- iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (2) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- f) **Testing Requirements**
- (1) Compliance with the Emission 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:**

Visible particulate emissions from the stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.
 - b. **Emission Limitation:**

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

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



c. Emission Limitation:

The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.

Applicable Compliance Method:

Compliance with this requirement is determined by compliance with the visible particulate emissions limit in b)(1)b.

d. Emission Limitation:

Particulate emissions (PE) shall not exceed 8.8 pounds per hour.

Applicable Compliance Method:

The rule-based PE limitation is based upon the permittee-supplied maximum uncontrolled emission rate for the emissions unit and OAC rule 3745-17-11, Figure II.

Compliance was determined by multiplying the maximum steel casting processing rate of 8000 pounds per hour by 17 pounds per ton (AP-42 Table 12.10-7) then dividing by 2000 pounds per ton. The resulting number is multiplied by 1-.99 (the use of a 99% control efficiency for the fabric filter) to determine the pounds per hour emission rate.

If required, compliance will be determined by Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

(1) None.



5. P006, Medium Cleaning Line

Operations, Property and/or Equipment Description:

Medium Cleaning Line (Tumblast #418 A)

- 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 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.
c.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 8.8 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 7 inches of water.

The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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

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



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

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

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

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

- (2) The permittee shall perform daily 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 daily 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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

a. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:

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

b. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:

- i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
- ii. 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



- iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (2) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- f) **Testing Requirements**
- (1) Compliance with the Emission 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:**

Visible particulate emissions from the stack shall not exceed twenty percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.
 - b. **Emission Limitation:**

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

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



c. Emission Limitation:

The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.

Applicable Compliance Method:

Compliance with this requirement is determined by compliance with the visible particulate emissions limit in b)(1)b.

d. Emission Limitation:

Particulate emissions (PE) shall not exceed 8.8 pounds per hour.

Applicable Compliance Method:

The rule-based PE limitation is based upon the permittee-supplied maximum uncontrolled emission rate for the emissions unit and OAC rule 3745-17-11, Figure II.

Compliance was determined by multiplying the maximum steel casting processing rate of 8000 pounds per hour by 17 pounds per ton (AP-42 Table 12.10-7) then dividing by 2000 pounds per ton. The resulting number is multiplied by 1-.99 (the use of a 99% control efficiency for the fabric filter) to determine the pounds per hour emission rate.

If required, compliance will be determined by Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

(1) None.



6. P007, Castings Cleaning Small Line

Operations, Property and/or Equipment Description:

Castings Cleaning Small Line with Fabric Filter (Tumblast 430A)

- 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 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.
c.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 8.8 pounds per hour.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 7 inches of water.

The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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

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



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

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

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

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

- (2) The permittee shall perform daily 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 daily 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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
 - a. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:
 - i. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - iii. each incident of deviation described in "e)(1)a.i." (above) where a prompt investigation was not conducted;
 - iv. each incident of deviation described in "e)(1)a.i." where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - v. each incident of deviation described in "e)(1)a.i." where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
 - b. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:
 - i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - ii. 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



- iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (2) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- f) Testing Requirements
- (1) Compliance with the Emission 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:

Visible particulate emissions from the stack shall not exceed twenty percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method:

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

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

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



c. Emission Limitation:

The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.

Applicable Compliance Method:

Compliance with this requirement is determined by compliance with the visible particulate emissions limit in b)(1)b.

d. Emission Limitation:

Particulate emissions (PE) shall not exceed 8.8 pounds per hour.

Applicable Compliance Method:

The rule-based PE limitation is based upon the permittee-supplied maximum uncontrolled emission rate for the emissions unit and OAC rule 3745-17-11, Figure II.

Compliance was determined by multiplying the maximum steel casting processing rate of 8000 pounds per hour by 17 pounds per ton (AP-42 Table 12.10-7) then dividing by 2000 pounds per ton. The resulting number is multiplied by 1-.99 (the use of a 99% control efficiency for the fabric filter) to determine the pounds per hour emission rate.

If required, compliance will be determined by Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

(1) None.



7. P901, Electric Arc Furnace with Fabric Filter

Operations, Property and/or Equipment Description:

4 Ton/hour Electric Arc Furnace Controlled with a 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. b)(1)a., c)(1), d)(3), e)(1), f)(1)e., f)(1)f., f)(1)g., and f)(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)	Particulate emissions (PE) shall not exceed 12.69 tons per year (TPY), based upon a rolling, 12-month summation of the monthly emissions. Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 11.76 tons per year (TPY) based upon a rolling, 12-month summation of the monthly emissions. Carbon monoxide (CO) emissions shall not exceed 3.1 tons per year (TPY) based upon a rolling, 12-month summation of the monthly emissions. See c)(1), d)(3), e)(1), f)(1)e., f)(1)f., f)(1)g., and f)(2).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.
d.	OAC rule 3745-17-08(B)	The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.
e.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) from the baghouse/fabric filter exhaust stack shall not exceed 7.41 pounds per hour.

(2) Additional Terms and Conditions

a. This emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The maximum amount of metal poured from the electric arc furnace (emissions unit P901) shall not exceed 12,800 tons per year, based upon a rolling, 12-month summation of the monthly amounts of metal poured.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 6 inches of water.

The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with



the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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

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

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

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

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



- (2) The permittee shall perform daily 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 daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (3) The permittee shall maintain monthly records of the following information:
- a. the amount of metal poured for each month;
 - b. the total PE, in tons;
 - c. the total PM10 emissions, in tons;
 - d. the total CO emissions, in tons;
 - e. the updated rolling, 12-month summation of the amount of metal poured; and
 - f. the updated rolling, 12-month summation for each of the monthly PE, PM10, and CO emissions.

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 exceedances of the rolling, 12-month operational restriction for the amount of metal poured as specified in c)(1);
 - ii. all exceedances of the rolling, 12-month emission limitation for PE as specified in b)(1)a.;
 - iii. all exceedances of the rolling, 12-month emission limitation for PM10 emissions as specified in b)(1)a.;
 - iv. all exceedances of the rolling, 12-month emission limitations for CO emissions as specified in b)(1)a.;
 - v. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range; and
 - vi. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse.
- 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 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 submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
 - a. The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:
 - i. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;



- ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - iii. each incident of deviation described in "e)(2)a.i." (above) where a prompt investigation was not conducted;
 - iv. each incident of deviation described in "e)(2)a.i." where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - v. each incident of deviation described in "e)(2)a.i." where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- b. The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:
- i. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - ii. 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
 - iii. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (3) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



f) Testing Requirements

(1) Compliance with the Emission 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:

Visible particulate emissions from the stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

b. Emission Limitation:

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

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

c. Emission Limitation:

The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures in order to prevent fugitive dust from becoming airborne.

Applicable Compliance Method:

Compliance with this requirement is determined by compliance with the visible particulate emissions limit in b)(1)c.

d. Emission Limitation:

Particulate emissions (PE) from the baghouse/fabric filter exhaust stack shall not exceed 7.41 pounds per hour.

Applicable Compliance Method:

The rule-based PE limitation is based upon the permittee-supplied maximum uncontrolled emission rate for the emissions unit and OAC rule 3745-17-11, Figure II.



The uncontrolled mass rate of emission was determined by multiplying 4 tons/hour of steel poured by 13.0 pounds of particulate per ton of steel (AP-42 Table 12.13-2).

If required, compliance will be determined by Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

Particulate emissions (PE) shall not exceed 12.69 tons per year (TPY), based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

The annual particulate emissions are determined by multiplying the tons of steel produced by 13.0 pounds of particulate per ton of steel (AP-42 Table 12.13-2) then multiplying by 1-control efficiency of the fabric filter. The fugitive emissions are determined by multiplying the uncontrolled emissions rate by 0.01 (assumes a 99% capture efficiency). As long as the permittee complies with the rolling, 12-month production rate they will comply with the above emission limitation.

f. Emission Limitation:

Particulate matter 10 microns and less in diameter (PM10) emissions shall not exceed 11.76 tons per year (TPY) based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

The annual PM10 emissions are determined by multiplying the tons of steel produced by 11.6 pounds of particulate per ton of steel (AP-42 Table 12.10-9) then multiplying by 1-control efficiency of the fabric filter. The fugitive emissions are determined by multiplying the uncontrolled emissions rate by 0.01 (assumes a 99% capture efficiency). As long as the permittee complies with the rolling, 12-month production rate they will comply with the above emission limitation.

g. Emission Limitation:

Carbon monoxide (CO) emissions shall not exceed 3.1 tons per year (TPY) based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

The annual carbon monoxide emissions are determined by multiplying the tons of steel produced by 0.48 pounds of CO per ton of furnace capacity (based upon the information submitted in the permit application). As long as the permittee complies with the rolling, 12-month production rate they will comply with the above emission limitation.



- (2) Compliance with the production limitation in c)(1) shall be determined by the record keeping in d)(3).
- g) Miscellaneous Requirements
 - (1) None.