



Environmental Protection Agency

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

7/3/2012

Thomas Bowker  
COL-PUMP COMPANY, INC.  
131 EAST RAILROAD ST  
Columbiana, OH 44408

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0215010001  
Permit Number: P0110199  
Permit Type: Initial Installation  
County: Columbiana

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Morning Journal. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification  
Ohio EPA-NEDO; Pennsylvania; West Virginia

Certified Mail

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





Permit Strategy Write-Up

1. Check all that apply:

X Synthetic Minor Determination

Netting Determination

2. Source Description: Col-Pump Company, Inc. produces gray iron castings. This FEPTIO is for the installation of 2 new electric induction furnaces (EIFs), F012 and F013, which will replace the 2 existing cupolas, P901 and P902. The 2 new EIFs will result in an increase in casting s production from 5.02 tons per hour to 6.0 tons per year.

Further, the increase in castings production will result in emissions increases for the following emissions units; Shakeout (F008), Pouring & Cooling (F009), Shotblast-Wheelabrator (P003), Grinding (P004) and Shotblast-Tumblast (P005).

3. Facility Emissions and Attainment Status: The location of the facility is currently designated as attainment for all criteria pollutants. Col-Pump is a potential major source for PE, PM10, and VOC emissions.

4. Source Emissions: This permit restricts emissions of PE, PM10, VOCs, and HAPs from the facility to below Title V thresholds by limiting the throughput and operating hours of the EIFs; limiting the production or pouring rates and operating hours of P003, P004 P005, F012 and F013.

5. Conclusion: Through the limits listed above and the use of control equipment (along with the limits and control requirements established in FEPTIO No. P0108782 and FEPIO No. P0108012), Col-Pump Company, Inc.'s potentials to emit for PE, PM10, VOC, and HAP emissions will be limited to below the Title V threshold.

6. Please provide additional notes or comments as necessary:

The renewal of P01018012 was issued final on June 20, 2012. It includes Sand Handling (F007), Dip Tank #1 (K001) and Dip Tank #2 (K002) for which no emissions increases will result following the installation of the 2 new EIFs which will replace the 2 existing Cupolas.

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Table with 2 columns: Pollutant, Tons Per Year. Rows include PE (53.8), PM10 (46.09), CO (22.33), VOC (44.64), Individual HAP (9.9), and Combined HAPs (24.9).



PUBLIC NOTICE

7/3/2012 Issuance of Draft Air Pollution Permit-To-Install and Operate

COL-PUMP COMPANY, INC.

131 EAST RAILROAD ST,

Columbiana, OH 44408

Columbiana County

FACILITY DESC.: Iron Foundries

PERMIT #: P0110199

PERMIT TYPE: Initial Installation

PERMIT DESC: FEPTIO for the installation of two new Electric Induction Furnaces and to allow production and emissions increases in other existing iron castings process finishing emissions units.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Megan Talcott, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)425-9171



**Ohio**

**Environmental  
Protection Agency**

**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
COL-PUMP COMPANY, INC.**

Facility ID:	0215010001
Permit Number:	P0110199
Permit Type:	Initial Installation
Issued:	7/3/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





Division of Air Pollution Control
Permit-to-Install and Operate
for
COL-PUMP COMPANY, INC.

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## Authorization

Facility ID: 0215010001  
Application Number(s): A0044734  
Permit Number: P0110199  
Permit Description: FEPTIO for the installation of two new Electric Induction Furnaces and to allow production and emissions increases in other existing iron castings process finishing emissions units.  
Permit Type: Initial Installation  
Permit Fee: \$5,750.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 7/3/2012  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

COL-PUMP COMPANY, INC.  
131 EAST RAILROAD ST  
Columbiana, OH 44408

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0110199

Permit Description: FEPTIO for the installation of two new Electric Induction Furnaces and to allow production and emissions increases in other existing iron castings process finishing emissions units.

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

- Emissions Unit ID: F008**  
Company Equipment ID: Shakeout  
Superseded Permit Number: P0110319  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: F009**  
Company Equipment ID: Pouring and Cooling/Inoculation  
Superseded Permit Number: P0110319  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P003**  
Company Equipment ID: Shotblast - Wheelabrator  
Superseded Permit Number: P0110319  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P004**  
Company Equipment ID: Grinding  
Superseded Permit Number: P0108782  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P005**  
Company Equipment ID: Shotblast - Tumblast  
Superseded Permit Number: P0110319  
General Permit Category and Type: Not Applicable

**Group Name: Electric Induction Furnaces**

<b>Emissions Unit ID:</b>	<b>F012</b>
Company Equipment ID:	EIF #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F013</b>
Company Equipment ID:	EIF#2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

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

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

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<sup>1</sup>Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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

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

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

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

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

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

## **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) B.2, B.3, B.4, B.5 and B.6
2. The emissions of hazardous air pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from all emissions units at this facility shall not exceed 9.9 tons/year for any individual HAP and 24.9 tons/year for total combined HAPs, as rolling, 12-month summations.
3. The permittee shall collect and record the following information each month on a facility-wide basis, for all emissions units at the facility:
  - a) the total emissions of each individual HAP and total combined HAPs, in pounds per month; and
  - b) the rolling, 12-month summation of emissions of each individual HAP and total combined HAPs, in tons.
4. The permittee shall submit quarterly deviation (excursion) reports for all exceedances as follows:
  - a) an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 9.9 tpy for each individual HAP; and
  - b) an identification of each rolling, 12-month period during which emissions of HAPs from all emissions units at the plant exceeded 24.9 tpy for total combined HAPs;

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

5. The permittee shall submit annual reports that summarize the following information:
  - a) the total actual annual individual HAP emissions for the entire facility, in tons; and
  - b) the total actual annual combined HAPs emissions for the entire facility, in tons.

These reports shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

6. Compliance with the emission limitations in B.2 above shall be determined in accordance with the following methods:

a) Emission Limitations:

Facility-wide individual HAP emissions shall not exceed 9.9 tons per rolling, 12-month period.

Facility-wide total combined HAP emissions shall not exceed 24.9 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual HAP emission limitations shall be demonstrated based on the recordkeeping requirements specified in B.3.

7. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63, Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources. Although Ohio EPA has determined that this area source MACT (also known as the GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.

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

**1. F008, Shakeout**

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

Iron Castings 2 Shakeouts (Upper & Lower) w/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. 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 20% opacity, as a 6-minute average, accept as provided by the rule.  See b)(2)a.
b.	OAC rule 3745-17-07(B)(1)	Fugitive visible particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) from this emissions unit shall not exceed 3.9 pounds per hour.
e.	OAC rule 3745-31-05(D)(1)(b)	Particulate matter emissions less than or equal to 10 microns in diameter (PM <sub>10</sub> ) from this emissions unit shall not exceed 3.12 tons per rolling, 12-month period.  Volatile organic compound (VOC) emissions from this emissions unit shall

**Draft Permit-to-Install and Operate**

COL-PUMP COMPANY, INC.

**Permit Number:** P0110199

**Facility ID:** 0215010001

**Effective Date:** To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		not exceed 22.32 tons per rolling, 12-month period.

(2) Additional Terms and Conditions

- a. Except as otherwise specified in paragraphs (A)(2) and (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the stack may exceed 20% opacity, as a 6-minute average for not more than 6 consecutive minutes in any 60 minutes, but shall not exceed 60% opacity, as a 6-minute average, at any time.
- b. Reasonably available control measures (RACM) shall be employed to minimize fugitive particulate emissions. RACM shall include, but not be limited to, maintaining an adequate draft into the hood that directs the exhaust to a baghouse. The system shall provide an overall particulate control efficiency of 84% (85% capture efficiency and 99% control efficiency). The permittee shall check the position of the dampers daily to assure that the draft is sufficient to adequately capture emissions.

c) Operational Restrictions

- (1) The annual operating hours for this emissions unit shall not exceed 3,100 hours, based upon a rolling, 12-month summation of the operating hours.
- (2) The production rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information for each month of operation for this emissions unit:
  - a. the operating hours for each month;
  - b. the rolling, 12-month summation of the operating hours;
  - c. the amount of metal (castings), in tons, shaken during each month;
  - d. the rolling, 12-month summation of metal (castings) shaken, in tons;
  - e. the average production rate of this emissions unit, in tons per hour, during each month, calculated by dividing (c) by (a); and
  - f. the rolling, 12-month average production rate of this emissions unit, in tons per hour, calculated by dividing (d) by (b).
- (2) The permittee shall record each month the rolling, 12-month PM<sub>10</sub> emissions rate, in tons, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs} \times (1 - CE)$$

where:

E = emissions rate, in tons per rolling, 12-month period;

EF = emission factor for PM<sub>10</sub> is 2.24 lbs PM<sub>10</sub>/ton metal\*;

P = the rolling, 12-month average production rate of this emissions unit, in tons of metal per hour, as recorded in d)(1)f;

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b; and

CE = overall control efficiency of capture equipment and baghouse, expressed as a decimal, is 0.84.

\* Emission Factor of 2.24 lbs PM<sub>10</sub>/ton metal is from AP-42 Table 12.10-9 (1/95), (shakeout uncontrolled).

- (3) The permittee shall record each month the rolling, 12-month VOC emissions rate, in tons, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs}$$

where:

E = emissions rate, in tons per rolling, 12-month period;

EF = emission factor for VOC is 2.4 lbs VOC/ton metal\*;

P = the rolling, 12-month average production rate of this emissions unit, in tons of metal per hour, as recorded in d)(1)f; and

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b.

\* Derivation of Emission Factor. 6:1 is the sand:metal ratio. 4% seacoal in green sand. Assume 1% burnout rate. 50% of burnout is VOC. (6 tons sand/1 ton metal)(0.04)(0.01)(0.50)(2,000 lbs/1 ton) = 2.4 lbs VOC /ton of metal.

- (4) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions 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 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 emission unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (5) 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, in inches of water, 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:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date(s) the investigation was conducted;
- d. the names 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 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. a description of the corrective action;
- b. the date it 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; and

- f. 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 is 1.0 to 6.0 inches of water.

This range 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 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 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.

- (6) The permittee shall conduct daily inspections of the dampers to the baghouse to ensure adequate capture and operation of the baghouse. The inspection findings, and any subsequent maintenance task performed, shall be entered into a maintenance log.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports for all exceedances as follows:
- a. the month when the rolling, 12-month summation of the operating hours exceeded 3,100 hours;
  - b. the month when the PM<sub>10</sub> and/or VOC emissions rate exceeded the respective tons per rolling, 12-month period emission limitation; and
  - c. the month when the average production rate for this emissions unit exceeded 6.0 tons of metal per hour.

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These

reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
- (4) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the pressure drop across the baghouse field was outside of the acceptable range;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, accept as provided by the rule.

Applicable Compliance Method:

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

b. Emission Limitation:

Fugitive visible particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

c. Emission Limitation:

PE from this emissions unit shall not exceed 3.9 pounds per hour.

Applicable Compliance Method:

If required, the permittee shall conduct, or have conducted, particulate emission testing at the outlet of the stack serving this emissions unit to demonstrate compliance with the particulate emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

d. Emission Limitation:

PM<sub>10</sub> emissions from this emissions unit shall not exceed 3.12 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(2).

e. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 22.32 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(3).

f. Operational Restriction:

The annual operating hours for this emissions unit shall not exceed 3,100 hours, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(1).

g. Operational Restriction:

The production rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(1)e.

h. Operational Restriction:

The acceptable range for the pressure drop across the baghouse is 1.0 to 6.0 inches of water.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirements specified in d)(5).

- (2) Reasonably Available Control Measures required by OAC rule 3745-17-08(B) that are employed for this emissions unit shall be considered adequate if compliance with the visible particulate emissions limitation contained in OAC rule 3745-17-07 is achieved.

g) Miscellaneous Requirements

- (1) None.

**2. F009, Pouring and Cooling/Inoculation**

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

Iron Castings Pouring and Cooling.

- 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(B)(1)	Fugitive visible particulate emissions shall not exceed 20% opacity as a 3-minute average.
b.	OAC rule 3745-17-08(B)(3)	See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	Carbon monoxide (CO) emissions shall not exceed 22.32 tons per rolling, 12-month period.  Particulate matter emissions less than or equal to 10 microns in diameter (PM <sub>10</sub> ) shall not exceed 22.33 tons per rolling, 12-month period.  Volatile organic compound (VOC) emissions shall not exceed 22.32 tons per rolling, 12-month period.

(2) Additional Terms and Conditions

- a. Reasonably available control measures (RACM) shall be employed to minimize fugitive particulate emissions. RACM shall include, but not be limited to, containing operations within the building and using good engineering practices.

c) Operational Restrictions

- (1) The annual operating hours for this emissions unit shall not exceed 3,100 hours based upon a rolling, 12-month summation of the operating hours.
- (2) The pouring rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information for each month of operation for this emissions unit:
  - a. the operating hours for each month;
  - b. the rolling, 12-month summation of the operating hours;
  - c. the amount of metal poured, in tons, during each month;
  - d. the rolling, 12-month summation of metal poured, in tons;
  - e. the average pouring rate of this emissions unit, in tons of metal per hour, during each month, calculated by dividing (c) by (a); and
  - f. the rolling, 12-month average pouring rate of this emissions unit, in tons of metal per hour, calculated by dividing (d) by (b).

- (2) The permittee shall record each month the CO emissions rate in tons per rolling, 12-month period, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs}$$

where:

E = emissions rate, in tons per rolling, 12-month period;

EF = emission factor for CO is 2.4 lbs CO/ton metal poured \*;

P = the average pouring rate, in tons of metal per hour, as recorded in d)(1)f; and

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b.

\* Derivation of Emission Factor. 6:1 is the sand:metal ratio. 4% seacoal in green sand. Assume 1% burnout rate. 50% of burnout is CO. (6 tons sand/1 ton metal)(0.04)(0.01)(0.50)(2,000 lbs/1 ton) = 2.4 lbs CO /ton of metal.

- (3) The permittee shall record each month the VOC emissions rate in tons per rolling, 12-month period, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs}$$

where:

E = emissions rate, in tons per rolling, 12-month period;

EF = emission factor for VOC is 2.4 lbs VOC/ton metal poured \*;

P = the average pouring rate, in tons metal per hour, as recorded in d)(1)f; and

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b.

\* Derivation of Emission Factor. 6:1 is the sand:metal ratio. 4% seacoal in green sand. Assume 1% burnout rate. 50% of burnout is VOC. (6 tons sand/1 ton metal)(0.04)(0.01)(0.50)(2,000 lbs/1 ton) = 2.4 lbs VOC /ton of metal.

- (4) The permittee shall record each month the PM<sub>10</sub> emissions rate in tons per rolling, 12-month period, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs}$$

where:

E = emissions rate, in tons per rolling, 12-month period;

EF = emission factor for PM<sub>10</sub> is 2.4 lbs PM<sub>10</sub>/ton metal poured \*;

P = the average pouring rate, in tons metal per hour, as recorded in d)(1)f; and

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b.

\* Derivation of Emission Factor. Emission factor for PM is 4.2 lbs PM/ton metal from AP-42 Table 12.10-7 (1/95), (pouring/uncontrolled for PM). A fugitive dust emission factor of 0.7 lb PM/ton from RACM Table 2.7-1 (alloying in the ladle) is added for a total of 4.9 lbs PM/ton metal. Based on AP-42 Table 12.10-9 (1/95) 49% of PM is PM<sub>10</sub>. (0.49)(4.9 lbs PM/ton metal) = 2.4 lbs PM<sub>10</sub>/ton metal.

- (5) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive 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 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 emission 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 quarterly deviation (excursion) reports for all exceedances as follows:
  - a. the month when the rolling, 12-month summation of operating hours exceeded 3,100 hours;
  - b. the month when the CO, PM<sub>10</sub> and/or VOC emissions rate exceeded the respective tons per rolling, 12-month period emissions limitation; and
  - c. the month when the average pouring rate exceeded 6.0 tons metal per hour.

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit.

The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

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

f) Testing Requirements

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

a. Emission Limitation:

Fugitive visible particulate emissions from this emissions unit shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the above fugitive visible particulate emission limitation shall be demonstrated based upon fugitive visible emission observations perform in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

CO emissions shall not exceed 22.32 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(2).

c. Emission Limitation:

VOC emissions shall not exceed 22.32 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(3).

d. Emission Limitation:

PM<sub>10</sub> emissions shall not exceed 22.32 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(4).

e. Operational Restriction:

The annual operating hours for this emissions unit shall not exceed 3,100 hours based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(1).

f. Operational Restriction:

The pouring rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(1)e.

- (2) Reasonably Available Control Measures required by OAC rule 3745-17-08(B) that are employed for this emissions unit shall be considered adequate if compliance with the visible particulate emissions limitation contained in OAC rule 3745-17-07 is achieved.

g) Miscellaneous Requirements

- (1) None.

**3. P003, Shotblast - Wheelabrator**

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

Iron Castings Shotblast – Wheelabrator w/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. 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 20% opacity, as a 6-minute average, except as provided by the rule.  See b)(2)a.
b.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) from this emissions unit shall not exceed 7.9 pounds per hour, from the Wheelabrator stack.
c.	OAC rule 3745-31-05(D)(1)(b)	Particulate matter emissions less than or equal to 10 microns in diameter (PM <sub>10</sub> ) from this emissions unit shall not exceed 7.9 tons per year, from the Wheelabrator stack.

(2) Additional Terms and Conditions

- a. Except as otherwise specified in paragraphs (A)(2) and (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the stack may exceed 20% opacity, as a 6-minute average for not more than 6 consecutive minutes in any 60 minutes, but shall not exceed 60% opacity, as a 6-minute average, at any time.

c) Operational Restrictions

- (1) The baghouse serving emissions units P003 and P005 shall be employed while this emissions unit is in operation.
- (2) The production rate for the shotblasting unit shall not exceed 6.0 tons per hour.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information for each month of operation for this emissions unit:
  - a. the total hours of operation;
  - b. the total amount of metal (castings) processed, in tons; and
  - c. the average, monthly production rate, in tons per hour, calculated by dividing (b) by (a).
- (2) The permittee shall record the following information for each year of operation for this emissions unit:
  - a. the total hours of operation;
  - b. the total amount of metal (castings) processed, in tons;
  - c. the average, annual production rate, in tons per year, calculated by dividing (b) by (a); and
  - d. the annual emissions rate for PM<sub>10</sub>, in tons per year, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs}$$

where:

E = emissions rate, in tons per year;

EF = emission factor for controlled PM<sub>10</sub> is 0.30 lb PM<sub>10</sub>/ton metal \*;

P = the average production rate, in tons per hour, as recorded in d)(2)c; and

H = hours of operation, in hours per year, as recorded in d)(2)a.

\* Emission Factor of 0.30 lb PM<sub>10</sub>/ton metal is based on test data, with controls.

- (3) 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, in inches of water, 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:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date(s) the investigation was conducted;
- d. the names 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 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. a description of the corrective action;
- b. the date it 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; and
- f. 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 is 1.0 to 9.0 inches of water.

This range 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 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 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 this emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack of the shotblasting 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 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 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. None.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports for all exceedances as follows:
- a. the month when the average production rate exceeded 6.0 tons per hour, as recorded in d)(1)c.

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack of the shotblasting unit and (b) describe any corrective actions taken to minimize or eliminate the visible

particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District office by January 31 and July 31 of each year and shall cover the previous 6-month period.

If no visible particulate emissions were observed from the stack during a 6-month period, the permittee shall still submit a semi-annual report which states that no visible emissions were observed.

(3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

(4) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

- a. each period of time when the pressure drop across the baghouse field was outside of the acceptable range;
- b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

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

b. Emission Limitation:

PE from the stack serving this emissions unit shall not exceed 7.9 pounds per hour, from the Wheelabrator stack.

Applicable Compliance Method:

If required, the permittee shall conduct, or have conducted, particulate emission testing at the outlet of the stack serving emissions units P003 and P005 to demonstrate compliance with the particulate emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitation:

PM<sub>10</sub> emission from this emissions unit shall not exceed 7.9 tons per year, from the Wheelabrator stack.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(2).

d. Operational Restriction:

The acceptable range for the pressure drop across the baghouse is 1.0 to 9.0 inches of water.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(3).

e. Operational Restriction:

The production rate for the shotblasting unit shall not exceed 6.0 tons per hour.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(1)c.

g) Miscellaneous Requirements

- (1) None.

**4. P004, Grinding**

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

11 grinding stations, 9 controlled by HEPA filters

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(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
b.	OAC rule 3745-17-08(B)(3)	See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	Particulate emissions less than or equal to 10 microns in diameter (PM <sub>10</sub> ) shall not exceed 0.8 ton per rolling, 12 month period.

(2) Additional Terms and Conditions

a. Reasonably available control measures (RACM) shall be employed to minimize particulate emissions of fugitive dust from the grinder that exhausts directly to the plant interior. RACM shall include, but not be limited to, containing operations within the building and using good engineering practices.

c) Operational Restrictions

- (1) When a grinder equipped with a HEPA filter is in operation, the HEPA filter shall also be in operation.
- (2) The maximum production rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information for each month of operation for this emissions unit:
  - a. the total hours of operation;
  - b. the total amount of metal (castings), in tons, grinded;
  - c. the average, monthly production rate for this emissions unit, in tons per hour, calculated by dividing (b) by (a); and
  - d. the day and time when a grinder equipped with a HEPA filter was in operation and the HEPA filter was not in operation.
- (2) The permittee shall record the following information for each year of operation for this emissions unit:
  - a. the total hours of operation;
  - b. the total amount of metal (castings), in tons, grinded;
  - c. the average, yearly production rate for this emissions unit, in tons per hour, calculated by dividing (b) by (a); and
  - d. the yearly emissions rate for PM<sub>10</sub>, in tons per year, for this emissions unit, as calculated by the following equation:

$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs} \times (1 - CE)$$

where:

E = emission rate of PM<sub>10</sub>, in tons per year;

EF = emission factor for PM<sub>10</sub> is 0.168 lb PM<sub>10</sub>/ton metal \*;

P = the average production rate, in tons metal per hour, as recorded in d)(2)c;

H = hours of operation, in hours per year, as recorded in d)(2)a; and

CE = control efficiency of HEPA filter expressed as a decimal is 0.81.

\* Emission Factor of 0.168 lb PM<sub>10</sub>/ton metal is based on test data, without controls.

- (3) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive 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 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 emission 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 quarterly deviation (excursion) reports for all exceedances as follows:
- a. each month when the average production rate exceeded 6.0 tons of metal per hour; and
  - b. the date and time when a grinder equipped with a HEPA filter was in operation and the HEPA filter was not in operation.

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive

particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

PM<sub>10</sub> emissions shall not exceed 0.80 ton per rolling, 12 month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d)(2).

c. Operational Restriction:

The maximum production rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d)(1)c.

(2) Reasonably available control measures required by OAC rule 3745-17-08(B) that are employed for this emissions unit shall be considered adequate if compliance with the visible particulate emission limitation contained in OAC rule 3745-17-07 is achieved.

g) Miscellaneous Requirements

(1) None.

**5. P005, Shotblast - Tumblast**

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

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from this emissions unit shall not exceed 2.58 pounds per hour.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average except as provided by the rule.
c.	OAC rule 3745-17-11(B)(1)	The particulate emission limitation required by this applicable rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-31-05(D)(1)(b)	Particulate matter emissions less than or equal to 10 microns in diameter (PM <sub>10</sub> ) from this emissions unit shall not exceed 7.9 tons per year.

- (2) Additional Terms and Conditions
  - a. None.
- c) Operational Restrictions
  - (1) The baghouse serving emissions units P003 and P005 shall be employed while this emissions unit is in operation.
  - (2) The production rate for this emissions unit shall not exceed 6.0 tons of metal per hour.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall record the following information for each month of operation for this emissions unit:
    - a. the total hours of operation;
    - b. the total amount of metal (castings) processed, in tons; and
    - c. the average, monthly production rate, in tons per hour, calculated by dividing (b) by (a).
  - (2) The permittee shall record the following information for each year of operation for this emissions unit:
    - a. the total hours of operation;
    - b. the total amount of metal (castings) processed, in tons;
    - c. the average, annual production rate, in tons per year, calculated by dividing (b) by (a); and
    - d. the annual emissions rate for PM<sub>10</sub> and the annual emissions rate for particulates, in tons per year, as calculated by the following equation:  
$$E = EF \times P \times H \times \text{ton}/2,000 \text{ lbs}$$
where:  
E = emissions rate, in tons per year;  
EF = emission factor for PM<sub>10</sub> is 0.30 lb PM<sub>10</sub>/ton metal \*;  
emission factor for particulates is 0.43 lb PE/ton metal \*\*;  
P = the average production rate, in tons per hour, as recorded in d)(2)c; and  
H = hours of operation, in hours per year, as recorded in d)(2)a.  
  
\* Emission Factor of 0.30 lb PM<sub>10</sub>/ton metal is based on test data, with controls.

\*\* Emission Factor of 0.43 lb PE/ton metal is a calculated factor. Calculation assumes that 70% of PE is PM<sub>10</sub> (AP-42 Table 12.10-9 (1/95) states PM<sub>10</sub> to be 70% of PE for uncontrolled shakeout operations). Shakeout operations considered to be similar to P005. Therefore,  $(0.70)(X) = 0.30$ .  $(X) = 0.30/0.70 = 0.43$  lb PE/ton.

- (3) 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, in inches of water, 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:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date(s) the investigation was conducted;
- d. the names 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 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. a description of the corrective action;
- b. the date it 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; and
- f. 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 is 1.0 to 9.0 inches of water.

This range 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 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 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 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 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 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 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 quarterly deviation (excursion) reports for all exceedances as follows:
- a. the month when the average production rate for the shotblasting unit exceeded 6.0 tons per hour, as recorded in d)(1)c; and

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to

the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District office by January 31 and July 31 of each year and shall cover the previous 6-month period.

If no visible particulate emissions were observed from the stack during a 6-month period, the permittee shall still submit a semi-annual report which states that no visible emissions were observed.

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

- (4) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

- a. each period of time when the pressure drop across the baghouse field was outside of the acceptable range;
- b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average except as provided by the rule.

Applicable Compliance Method:

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

b. Emission Limitation:

PE from this emissions unit shall not exceed 2.58 pounds per hour.

Applicable Compliance Method:

If required, the permittee shall conduct, or have conducted, particulate emission testing at the outlet of the stack serving emissions units P003 and P005 to demonstrate compliance with the particulate emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitation:

PM<sub>10</sub> emissions from this emissions unit shall not exceed 7.9 tons per year.

Applicable Compliance Method:

Compliance with the above emission limitations shall be demonstrated based upon the monitoring and record keeping requirements specified in d)(2).

d. Operational Restriction:

The acceptable range for the pressure drop across the baghouse is 1.0 to 9.0 inches of water.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(3).

e. Operational Restriction:

The production rate for this emissions unit shall not exceed 6.0 tons of metal per hour.

Applicable Compliance Method:

Compliance with the above operational restriction shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(1)c.

g) Miscellaneous Requirements

(1) None.

**6. Emissions Unit Group -Electric Induction Furnaces: F012,F013,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
F012	Electric Induction Furnace #1 for grey iron melting.
F013	Electric Induction Furnace #2 for grey iron melting.

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(B)(1)	Fugitive visible particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.
b.	OAC rule 3745-17-08(B)	See b)(2)a below.
c.	OAC rule 3745-31-05(D)(1)(b)	Particulate matter emissions less than or equal to 10 microns in diameter (PM <sub>10</sub> ) from this emissions unit shall not exceed 4.0 tons per rolling, 12-month period.  Lead emissions shall not exceed 0.26 ton per rolling 12-month period.
d.	OAC rule 3745-31-05(A)	Particulate emissions (PE) shall not exceed 4.19 tons per year.  See b)(2)b below.

(2) Additional Terms and Conditions

- a. Reasonably available control measures (RACM) shall be employed to minimize fugitive particulate emissions. RACM shall include, but not be limited to, the melting of only certified-metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics or organic liquids.
- b. The electric induction furnace shall be equipped with a cover or lid and kept closed except during periods of charging and tapping.
- c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001 in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 33745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revised rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emissions limit/control measures no longer apply.

c) Operational Restrictions

- (1) The output melting rate for this emissions unit shall not exceed 3.0 tons of metal per hour per electric induction furnace.
- (2) The annual operating hours for this emissions unit shall not exceed 3,100 hours, based upon a rolling, 12-month summation of the operating hours.
- (3) To ensure little or no hazardous air pollutant (HAP) emissions from the melting of scrap in this emissions unit, the permittee shall purchase and charge only certified-metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics or organic liquids.
- (4) During the transition from the operation of the existing 2 cupolas, emissions units P901 and P902 and the 2 new electric induction furnaces, emissions units F012 and F013, the output melting rate shall be limited to 5.02 tons per hour. Upon the permanent shutdown of emissions units P901 and P902, this restriction on metal production shall no longer be in effect.

d) Monitoring and/or Recordkeeping Requirements

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

- a. the operating hours for each month;
  - b. the rolling, 12-month summation of the operating hours;
  - c. the amount of metal charged, in tons;
  - d. the rolling, 12-month summation of metal charged, in tons;
  - e. the average melting rate of this emissions unit each month, in tons metal per hour, calculated by dividing (c) by (a); and
  - f. the rolling, 12-month average melting rate of this emissions unit, in tons metal per hour, calculated by dividing (d) by (b).
- (2) The permittee shall record each month the rolling, 12-month PM<sub>10</sub> emissions rate, in tons, as calculated by the following equation:

$$E = EF \times M \times H \times \text{tons}/2,000 \text{ lbs}$$

where:

E = the rolling, 12-month emissions rate, in tons;

EF = emission factor for controlled PM<sub>10</sub> is 0.86 lbs PM<sub>10</sub>/ton metal \*;

M = the rolling, 12-month average melting rate of this emissions unit, as recorded in d)(1)f, in tons per hour; and

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b.

\* Emission factor of 0.86 lb PM<sub>10</sub>/ton metal melted, derived from AP-42, Section 12.10, Table 12.10-3 (1/95) particulate emission factor of 0.9 lb/ton metal melted, of which 95% is assumed to be PM<sub>10</sub>.

- (3) The permittee shall record each month the rolling, 12-month lead emissions rate, in tons, as calculated by the following equation:

$$EL = EF \times M \times H \times \text{tons}/2,000 \text{ lbs}$$

where:

EL = the rolling, 12-month lead emissions rate, in tons;

EF = emission factor for controlled lead is 0.0545 lb lead/ton metal \*;

M = the rolling, 12-month average melting rate of this emissions unit, as recorded in d)(1)f, in tons per hour; and

H = the rolling, 12-month summation of the operating hours, as recorded in d)(1)b.

\* Emission factor of 0.0545 lb lead/ton metal melted, from AP-42, Section 12.10, Table 12.10-5 (1/95) lead emission factor.

- (4) The permittee shall inspect each purchase of scrap material and shall inspect each charge to this emissions unit to ensure that the material melted in this emissions unit is only certified-metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics or organic liquids.

The permittee shall record the following information:

- a. date of when purchased scrap material is received on site;
  - b. inspection findings of the purchased material;
  - c. date and time of inspection of each charge to this emissions unit; and
  - d. inspection findings of the charged material to this emissions unit.
- (5) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive 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 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 emission 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 quarterly deviation (excursion) reports for all exceedances as follows:
- a. the month when the rolling, 12-month summation of operating hours exceeded 3,100 hours;

- b. the month when the PM<sub>10</sub> emissions rate exceeded the tons per rolling, 12-month period emissions limitation; and
- c. the month when the average pouring rate exceeded 3.0 tons metal per hour.

The calendar quarters are January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. The quarterly deviation reports shall be submitted to the Ohio EPA Northeast District Office quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

If no deviations occurred during a calendar quarter, the permittee shall still submit a quarterly report which states that no deviations occurred during the quarter.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
- (4) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (5) The permittee shall notify the Ohio EPA Northeast District Office regarding the permanent shutdown of the cupolas, emissions units P901 and P902, within 30 days of the shutdown.

f) **Testing Requirements**

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

- a. Emission Limitation:

Fugitive visible particulate emissions from this emissions unit shall not exceed 20% opacity, as a 3-minute average.

- Applicable Compliance Method:

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

b. Emission Limitation:

PM<sub>10</sub> emissions shall not exceed 4.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(2).

c. Emission Limitation:

PE shall not exceed 4.19 tons per year.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon an AP-42, Section 12.10-3 (1/95) particulate emission factor of 0.9 lb/ton metal melted, multiplied by the annual production limit of 3,100 tons per year of metal melted and the conversion factor 1.0 ton/2,000 lbs.

d. Emission Limitation:

Lead emissions shall not exceed 0.26 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based upon the monitoring and record keeping requirement specified in d)(3).

g) Miscellaneous Requirements

(1) None.