



Environmental Protection Agency

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

9/28/2012

Mike Seabolt
Quaker City Castings
310 EUCLID ST
SALEM, OH 44460

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0215090009
Permit Number: P0084435
Permit Type: Renewal
County: Columbiana

Certified Mail

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

Dear Permit Holder:

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

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

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

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Ohio EPA-NEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Quaker City Castings**

Facility ID:	0215090009
Permit Number:	P0084435
Permit Type:	Renewal
Issued:	9/28/2012
Effective:	9/28/2012
Expiration:	9/28/2017



Division of Air Pollution Control
Permit-to-Install and Operate
for
Quaker City Castings

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Authorization

Facility ID: 0215090009
Application Number(s): A0014998, A0014999
Permit Number: P0084435
Permit Description: FEPTIO for an Iron and Steel Foundry with restrictions on the amount of metal to be melted and the amount of sand to be used. The facility voluntarily agreed to these restrictions in order to stay below the Title V threshold of 100 tpy of PM10.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 9/28/2012
Effective Date: 9/28/2012
Expiration Date: 9/28/2017
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Quaker City Castings
310 EUCLID ST
SALEM, OH 44460

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

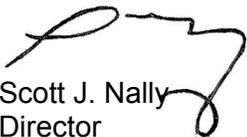
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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: P0084435

Permit Description: FEPTIO for an Iron and Steel Foundry with restrictions on the amount of metal to be melted and the amount of sand to be used. The facility voluntarily agreed to these restrictions in order to stay below the Title V threshold of 100 tpy of PM10.

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

Emissions Unit ID:	F002
Company Equipment ID:	Sand Foundry and core room virgin sand handling system
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F003
Company Equipment ID:	Main Bay and Side Floor Pouring & Inoculation
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F010
Company Equipment ID:	Small core mixer
Superseded Permit Number:	17-1486
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F012
Company Equipment ID:	Charge handling
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F015
Company Equipment ID:	Ajax and main furnace cooling
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F016
Company Equipment ID:	Large core mixer
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F017
Company Equipment ID:	Novaline Mixer Sand Molding Operation
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F022
Company Equipment ID:	Large Palmer Mixer Sand Molding Operation
Superseded Permit Number:	02-22462
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F023
Company Equipment ID:	Oil sand core molding
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Emissions Unit ID:	F025
Company Equipment ID:	Paved and unpaved roadway and parking areas
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F027
Company Equipment ID:	Arc welding
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F028
Company Equipment ID:	Spent sand storage pile load in/load out
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F029
Company Equipment ID:	Sand Foundry Electric Induction Furnace 3 (Ajax)
Superseded Permit Number:	02-22462
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	Pangborn Tableblast
Superseded Permit Number:	17-1620
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Centrifugal wheelbrator shotblast
Superseded Permit Number:	17-1305
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	5 Dry turn and bore machines
Superseded Permit Number:	02-22462
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	Wheelabrator Tumbleblast
Superseded Permit Number:	17-1517
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	8 Centrifugal mold machines
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	Multipart centrifugal mold machines
Superseded Permit Number:	02-22462
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P011
Company Equipment ID:	3 Foundry cutoff saws
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P012
Company Equipment ID:	Grinding Stations
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Group Name: Casting Knock-out

Emissions Unit ID:	F020
Company Equipment ID:	Main bay and side floor casting knockout
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F021
Company Equipment ID:	Outdoor casting knockout
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

Group Name: Furnaces

Emissions Unit ID:	F005
Company Equipment ID:	Sand Foundry Electric Induction Furnace 1
Superseded Permit Number:	P0012389
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F006
Company Equipment ID:	Centrifugal Casting Furnace 1
Superseded Permit Number:	P0012390
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F007
Company Equipment ID:	Centrifugal Casting Furnace 2
Superseded Permit Number:	P0012391
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F008
Company Equipment ID:	Sand Foundry Electric Induction Furnace 4
Superseded Permit Number:	P0012392
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F009
Company Equipment ID:	Sand Foundry Electric Induction Furnace 2
Superseded Permit Number:	P0012393
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F013
Company Equipment ID:	Sand Foundry Electric Induction Furnace 5
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F014
Company Equipment ID:	Centrifugal Casting Electric Induction Furnace 3
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	F030
Company Equipment ID:	Centrifugal Casting Electric Induction Furnace (H1)
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

A. Standard Terms and Conditions

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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

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

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

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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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

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

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the 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 submitting¹ 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.

¹Permittees 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) Allowable Facility-Wide Emission Limitation:
 - a. The total emissions of particulate matter of 10 microns or less (PM₁₀) from all of the air contaminant sources at this facility (except those defined as trivial by Ohio EPA DAPC Engineering Guide 62) shall not exceed 99.5 tons per rolling, 12-month period.
 - (2) Operational Restrictions:
 - a. The maximum throughput of metal melt shall not exceed 17,520 tons per rolling, 12-month period.
 - b. The maximum throughput of virgin sand processing shall not exceed 87,600 tons per rolling, 12-month period.
 - (3) Monitoring and/or Recordkeeping Requirements:
 - a. The permittee shall collect and record the following information each month from all of the air contaminant sources at this facility (except those defined as trivial by Ohio EPA DAPC Engineering Guide 62):
 - i. total metal melt, in tons;
 - ii. rolling, 12-month metal melt;
 - iii. total virgin sand processed, in tons; and
 - iv. rolling, 12-month virgin sand processed.

*The rolling, 12-month value is calculated by adding the current month's value to the sum of the values from the previous eleven months.
 - b. The air contaminant sources at the facility have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the emissions, upon issuance of this permit.

(4) Reporting Requirements:

- a. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - i. an identification of any month when any of the rolling, 12-month throughput limitations as specified in B.1.a and B.1.b are exceeded; and
 - ii. the actual throughput for the limitation that was exceeded.

If there are no deviations or exceedances, the permittee shall report that no exceedances occurred during the calendar quarter.

(5) Testing Requirements:

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

- i. Emission Limitation:

The total emissions of PM₁₀ from all of the air contaminant sources at this facility (except those defined as trivial by Ohio EPA DAPC Engineering Guide 62) shall not exceed 99.5 tons per rolling, 12-month period.

- Applicable Compliance Method:

Compliance with the facility-wide PM₁₀ emission limitation of 99.5 tons per rolling, 12-month period is assumed if the throughput limitations in B.1.b)(2) are not exceeded.

- c) The Ohio EPA has determined that Quaker City Castings (QCC) is subject to the requirements of the area source MACT/GACT rule for iron and steel foundries (40 CFR Part 63, Subpart ZZZZZ). Ohio EPA does not have the delegated authority to implement this rule. 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 are enforceable by U.S. EPA.

Note: Ohio EPA finds that QCC qualifies as a "small foundry" according to the definition in section 63.10880(f) of the area source MACT. This section reads "If the metal melt production for calendar year 2008 is 20,000 tons or less, your area source is a small foundry."

- d) As of the date of this permit issuance, QCC does not melt more than 600 tons of aluminum per year, and is therefore not subject to the area source MACT for aluminum, copper, and other nonferrous foundries (40 CFR Part 63, Subpart ZZZZZ). Ohio EPA also does not have the delegated authority to implement this area source MACT. 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 are enforceable by U.S. EPA.

Final Permit-to-Install and Operate

Quaker City Castings

Permit Number: P0084435

Facility ID: 0215090009

Effective Date: 9/28/2012

- e) 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. F002, Sand Foundry and core room virgin sand handling system

Operations, Property and/or Equipment Description:

Sand Foundry and Core Room Virgin Sand Handling System. (Storage silo with compressed air sand delivery system to sand mixer hoppers with entire system controlled by fabric filter baghouse)

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

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

a. None.

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

a. b)(1)d, c)(1), d)(1-2) and e)(1)

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 baghouse stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
c.	OAC rule 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

i. The installation and use of hoods, fans and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements:

(a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and

(b) the control equipment achieves an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the Ten Kay baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the Ten Kay baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

a. Ten Kay Baghouse: 3.0 to 10.0 inches of water

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

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

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

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

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

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

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

- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

- (4) The permittee shall record the total amount of sand processed at this emissions unit each month.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
 - (3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:
 - a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emission unit; and
 - c. any corrective actions taken to minimize or eliminate the visible emissions.
- 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 baghouse 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 stack visible particulate emission limitation shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.
 - b. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

c. Emission Limitation:

The controlled emissions from the stack shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:

Compliance with the requirement for no visible particulate emissions from the exhaust stack, identified in this permit, shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

If opting to comply with the outlet particulate emissions rate and if required, compliance with the 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases from the stack shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5, as appropriate.

g) Miscellaneous Requirements

(1) None.

2. F003, Main Bay and Side Floor Pouring &Inoculation

Operations, Property and/or Equipment Description:

Main Bay and Side Floor Pouring &Inoculation

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

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

a. None.

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

a. b)(1)c

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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(1) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

3. F010, Small core mixer

Operations, Property and/or Equipment Description:

Small Core Mixer

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1)b and e)(1)
- 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 PTI 17-1486 issued 5/15/96	Particulate emissions (PE) shall not exceed 1.25 tons per year. Visible emissions of fugitive dust shall not exceed 10% opacity as a 6-minute average. Se b)(2)b.
b.	OAC rule 3745-17-07(B)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

- a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- b. The volatile organic compound (VOC) limits from PTI 17-1486 are not included in this FEPTIO because those emissions are very low. The annual particulate emissions (PE) limit from PTI 17-1486 is also not included in this permit because particulate emissions from this emissions unit are covered by the restrictions of OAC rule 3745-31-05(D)(1)(b). The short term PE limit from the PTI will also be removed because this is a fugitive source.

c) Operational Restrictions

- (1) The total amount of sand processed at this emissions unit and emissions units F016 and F023, shall not exceed 17,520 tons per rolling, 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information each month:

- a. the total amount of sand, in tons, used at this emissions unit and at emissions units F016 and F023; and
- b. the rolling, 12-month total amount of sand, in tons, used at this emissions unit and at emissions unit F016 and F023.

- (2) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the sand usage limitation provided in c)(1) and as recorded according to d)(1)b, as follows:
 - a. the month(s) when the sand usage limitation was exceeded;
 - b. the actual sand usage amount;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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 emissions of fugitive dust shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

PE shall not exceed 1.25 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by the following equation:

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

where:

E = PE emissions, in ton/year;

S = amount of sand used, in tons per year, determined by the summation of the monthly record of sand usage during the year; and

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EF = emission factor of 0.35 lb PE/ton of sand, taken from Ohio EPA RACM (August 1983) Table 2.7-1 for sand mixing/core making operations.

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

4. F012, Charge handling

Operations, Property and/or Equipment Description:

Charge Handling

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

- (2) Additional Terms and Conditions
 - a. RACM shall include, but not be limited to, one or more of the following:
 - i. The permittee shall use adequate containment (building) for the charge handling operation.

- ii. The permittee shall maintain minimal drop heights when receiving new charge material.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(1) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.

5. F015, Ajax and main furnace cooling

Operations, Property and/or Equipment Description:

Ajax and Main Furnace Cooling, or Sand Foundry 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. b)(1)c
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

- a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(1) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.

6. F016, Large core mixer

Operations, Property and/or Equipment Description:

Large Core Mixer

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c, d)(1)b and e)(1)
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

- a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) The total amount of sand processed at this emissions unit and emissions units F010 and F023 shall not exceed 17,520 tons per rolling, 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information each month:

- a. the total amount of sand, in tons, used at this emissions unit and at emissions units F010 and F023; and
- b. the rolling, 12-month total amount of sand, in tons, used at this emissions unit and at emissions unit F010 and F023.

- (2) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the sand usage limitation provided in c)(1) and as recorded according to d)(1)b, as follows:

- a. the month(s) when the sand usage limitation was exceeded;
- b. the actual sand usage amount;
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

(1) None.

7. F017, Novaline Mixer Sand Molding Operation

Operations, Property and/or Equipment Description:

Novaline Mixer Sand Molding Operation

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c, c)(1), d)(1)b and e)(1)
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

- a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) The total amount of sand processed at this emissions unit and emissions unit F022 shall not exceed 70,080 tons per rolling, 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information each month:

- a. the total amount of sand, in tons, used at this emissions unit and at emissions unit F022; and
- b. the rolling, 12-month total amount of sand, in tons, used at this emissions unit and at emissions unit F022.

- (2) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the sand usage limitation provided in c)(1) and as recorded according to d)(1)b, as follows:

- a. the month(s) when the sand usage limitation was exceeded;
- b. the actual sand usage amount;
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

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Quaker City Castings

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a. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

(1) None.

8. F022, Large Palmer Mixer Sand Molding Operation

Operations, Property and/or Equipment Description:

Large Palmer Mixer Sand Molding Operation

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1)b and e)(1)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 02-22462 issued 1/15/08	Fugitive particulate (PE) emissions shall not exceed 12.88 tons per year. Fugitive volatile organic compound (VOC) emissions shall not exceed 0.26 ton per year. Visible particulate emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average. Compliance with OAC rule 3745-17-08(B). See b)(2)b.

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Facility ID: 0215090009

Effective Date: 9/28/2012

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(B)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	The permittee shall utilize reasonably available control measures (RACM) appropriate to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

- a. Compliance with the requirements of OAC rule 3745-17-08(B) is demonstrated when compliance with the visible particulate emission limitation of OAC rule 3745-31-05(A)(3) is achieved and maintained.
- b. The annual limit for fugitive formaldehyde , a single hazardous air pollutant (HAP), from PTI 02-22462 is not included in this FEPTIO because HAPs are covered under 40 CFR Part 63, Subpart ZZZZZ (area source MACT for iron and steel foundries). Associated terms are also not included for similar reason.

c) Operational Restrictions

- (1) The total amount of sand processed at this emissions unit and emissions unit F017 shall not exceed 70,080 tons per rolling, 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information each month:
 - a. the total amount of sand, in tons, used at this emissions unit;
 - b. the rolling, 12-month total amount of sand, in tons, used at this emissions unit and at emissions unit F017; and
 - c. the amount of each type of binder or resin used, in pounds or ton.
- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the sand usage limitation provided in c)(1) and as recorded according to d)(1)b, as follows:
 - a. the month(s) when the sand usage limitation was exceeded;
 - b. the actual sand usage amount;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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 PE shall not exceed 12.88 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by the following equation:

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

where:

E = PE emissions, in ton/year;

S = amount of sand used, in tons per year, determined by the summation of the monthly record of sand usage during the year; and

EF = emission factor of 0.35 lb PE/ton of sand, taken from Ohio EPA RACM (August 1983) Table 2.7-1 for sand mixing/core making operations.

b. Emission Limitation:

Fugitive VOC emissions shall not exceed 0.26 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by the following equation:

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

where:

E = VOC emissions, in tons/year;

S = amount of sand used, in tons per year, determined by the summation of the monthly record of sand usage during the year; and

EF = emission factor, in lb VOC/ton sand. Based on the information reported in the application for PTI 02-22462, the Alphasat:Sand ratio is 0.278 ounce/pound. VOC equals formaldehyde. The formaldehyde concentration in the Alphasat is 0.99% and formaldehyde emissions are at 2.0%. The emission factor was calculated to be 0.0069 lb/ton. If operations change (resin/sand ratio changes) and/or if the type of resin(s) changes, this emission factor must be re-calculated.

c. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

9. F023, Oil sand core molding

Operations, Property and/or Equipment Description:

Oil Sand Core Molding/Mulbarrow Mixer with small natural gas fired oven

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c, c)(1), d)(1)b and e)(1)
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

- a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) The total amount of sand processed at emissions units F010, F016 and F023 shall not exceed 17,520 tons per rolling, 12-month period.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the following information each month:

- a. the total amount of sand, in tons, used at emissions units F010, F016 and F023, combined; and
- b. the rolling, 12-month total amount of sand, in tons, used at this emissions unit and at emissions units F010, F016 and F023, combined.

- (2) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the sand usage limitation provided in c)(1) and as recorded according to d)(1)b, as follows:

- a. the month(s) when the sand usage limitation was exceeded;
- b. the actual sand usage amount;
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) Only the oil sand cores are placed in the core oven in order to drive off kerosene from the cores. The core oven is fueled by natural gas, and it is estimated to be rated less than 10 mmBtu per hour.

10. F025, Paved and unpaved roadway and parking areas

Operations, Property and/or Equipment Description:

Paved and Unpaved Roadway and Parking Areas

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(B)(4)	There shall be no visible particulate emissions from any paved roadway or parking area except for a period of time not to exceed 6 minutes during any 60-minute observation period. See b)(2)a.
b.	OAC rule 3745-17-07(B)(5)	There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed 13 minutes during any 60-minute observation period. See b)(2)a.

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Quaker City Castings

Permit Number: P0084435

Facility ID: 0215090009

Effective Date: 9/28/2012

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)b.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

- a. The requirements of OAC rule 3745-17-07(B)(4) and (5) do not apply to any fugitive dust source which is exempted from the requirements of OAC rule 3745-17-08(B). OAC rule 3845-17-08(A)(3)(c) states that the requirements of OAC rule 3745-17-08(B) shall not apply to fugitive dust generated from publicly owned roadways and parking lots, provided the fugitive dust is not directly caused by the deposition of materials due to industrial, commercial, or construction activities. Therefore, the visible particulate emission limitation for paved roadways does not apply to the publicly owned paved road that runs through the facility, except as provided by the rule.
- b. RACM shall include, but not be limited to, one or more of the following:
 - i. The periodic application of water or other suitable dust suppression chemicals on dirt or gravel roads and parking lots, and other surfaces which can cause emissions of fugitive dust;
 - ii. The covering, at all times, of open bodied vehicles when transporting materials likely to become airborne;
 - iii. The paving of roadways that are unpaved, and the maintaining of roadways in a clean condition; and
 - iv. The prompt removal, in such a manner as to minimize or prevent re-suspension, of sand or other material from paved streets onto which earth or other material has been deposited by trucking or erosion by water or other means. The courtyard area that includes the spent sand handling and storage area is exempt from this requirement. Vehicles in this area do not travel faster than 5 miles per hour and the material on the paved ground is primarily sand which is not likely to adhere to vehicle tires and be dispersed to other roadways.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas in accordance with the following frequencies:

<u>Paved and unpaved roadways and parking areas</u>	<u>Minimum inspection frequency</u>
All roads and parking areas	Daily

- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) have (have) ended, except if the next required inspection is within one week.

- (3) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emission Limitation:

There shall be no visible particulate emissions from any paved roadway or parking area except for a period of time not to exceed 6 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

b. Emission Limitation:

There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed 13 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.

11. F027, Arc welding

Operations, Property and/or Equipment Description:

Arc welding

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c, c)(1), d)(1) and e)(1)
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

- a. RACM shall include, but not be limited to, keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) The emissions from this emissions unit shall be vented to the Ten Kay baghouse or to the Cleaning Room baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The acceptable range for the pressure drop across the baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

- a. Ten Kay baghouse: 3.0 to 10.0 inches of water; and
- b. Cleaning Room baghouse: 0.5 to 6.5 inches of water.

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

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

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

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

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

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

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

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

- (3) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the

observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:

- a. each period of time (start time and date, and end time and date) when the pressure drop across either baghouse was outside of the acceptable range;
- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to either baghouse;
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(3) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.

12. F028, Spent sand storage pile load in/load out

Operations, Property and/or Equipment Description:

Spent Sand Storage Pile Load in/Load out

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

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

a. None.

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

a. b)(1)c

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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

- i. The permittee shall maintain minimal drop heights for stackers and front-loaders, and chemical stabilization/dust suppressants and/or watering/sprinkling systems at sufficient treatment frequencies to ensure compliance.
- ii. The operator shall avoid dragging any front-end loader bucket along the ground.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform daily inspections of each load-in and load-out operation at each storage pile, and of the wind erosion from the pile surfaces.
- (2) No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
- (3) The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
- (4) The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in d)(4)d shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(1) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.

13. F029, Sand Foundry Electric Induction Furnace 3 (Ajax)

Operations, Property and/or Equipment Description:

Sand Foundry Electric Induction Furnace 3 (Ajax)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1)c and e)(1)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 02-22462 issued 1/15/08	Fugitive particulate (PE) emissions shall not exceed 1.69 tons per year. Visible particulate emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average. See b)(2)a. Compliance with OAC rule 3745-17-08(B). See b)(2)b.
b.	OAC rule 3745-17-07(B)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Final Permit-to-Install and Operate

Quaker City Castings

Permit Number: P0084435

Facility ID: 0215090009

Effective Date: 9/28/2012

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(B)	The permittee shall utilize reasonably available control measures (RACM) appropriate to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)b.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. Combined hazardous air pollutants (HAP) annual limit from PTI 02-22462 is not included in this FEPTIO because HAPs are covered under 40 CFR Part 63, Subpart ZZZZZ (area source MACT for iron and steel foundries). Associated terms, including metal throughput restrictions due to HAPs and staying under modeling thresholds, are also not included for similar reason.

b. RACM shall include, but not be limited to, the following:

i. keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

Compliance with the requirements of OAC rule 3745-17-08(B) is demonstrated when compliance with the visible particulate emission limitation of OAC rule 3745-31-05(A)(3) is achieved and maintained.

c) Operational Restrictions

(1) The metal throughput in this emissions unit in combination with all of the other furnaces at the facility shall not exceed 17,520 tons per rolling, 12-month period.

(2) The metal throughput in this emissions unit shall not exceed 3,756 tons per year.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information each month:

a. the total amount of metal, in tons, charged to this emissions unit;

b. the total amount of metal, in tons, charged to this emissions unit in combination with all of the other furnaces at the facility; and

c. the rolling, 12-month total amount of metal, in tons, charged to this emissions unit in combination with all of the other furnaces at the facility.

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the metal charge limitation provided in c)(1) and as recorded according to d)(1)b, as follows:
- a. the month(s) when the metal charge limitation was exceeded;
 - b. the actual metal charge;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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 10% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

b. Emission Limitation:

Fugitive PE shall not exceed 1.69 tons per year.

Applicable Compliance Method:

The fugitive particulate emissions limitation was calculated using the maximum metal throughput of 3,756 tons per year. Demonstration of compliance shall be made by adding each month's total metal throughput, as recorded in d)(1)a, for each month of each year.

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

14. P004, PangbornTableblast

Operations, Property and/or Equipment Description:

PangbornTableblast

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)e, c)(1), d)(1-2) and e)(1)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 17-1620 issued 9/16/98	Particulate emissions (PE) from this emissions unit shall not exceed 1.28 lbs/hr and 5.6 tons per year. See b)(2)a. Visible particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)b.

Final Permit-to-Install and Operate

Quaker City Castings

Permit Number: P0084435

Facility ID: 0215090009

Effective Date: 9/28/2012

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	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).
e.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1) and c)(2).

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

i. The installation and use of hoods, fans and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements:

- (a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
- (b) the control equipment achieves an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the Tableblastbaghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitation in section B.1.b)(1)a of this permit, shall be the following:

a. TableblastBaghouse: 3 to 10 inches of water.

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

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

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

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

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

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

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

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

- (3) 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 emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:
- a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. the probable cause of each deviation (excursion); and

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- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
- (3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

f) Testing Requirements

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

- a. Emission Limitation:

PE from this emissions unit shall not exceed 1.28 lbs/hr and 5.6 tons per year.

Applicable Compliance Method:

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

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (1.28 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

b. Emission Limitation:

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

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

15. P005, Centrifugal wheelbratorshotblast

Operations, Property and/or Equipment Description:

Centrifugal WheelbratorShotblast

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

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

a. None.

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

a. b)(1)d, c)(1), d)(1-2) and e)(1)

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	Particulate emissions (PE) shall not exceed 1.8 tons per year.
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)	PE shall not exceed 6.52 lbs/hr. See b)(2)a.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1) and c)(2).

(2) Additional Terms and Conditions

a. Using the maximum hourly rate of 2 tons per hour, Table 1 of OAC rule 3745-17-11 provides the allowable particulate emissions rate of 6.52 pounds per hour.

c) Operational Restrictions

- (1) The emissions from this emissions unit shall be vented to the Centrifugal Wheelabrator Shotblast Baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The acceptable range for the pressure drop across the Centrifugal Wheelabrator Shotblast Baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

- a. Centrifugal Wheelabrator Shotblast Baghouse: 3.0 to 10 inches of water.

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

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

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

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

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

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

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

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

- (3) 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 emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:

- a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

(3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

f) Testing Requirements

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

a. Emission Limitation:

PE shall not exceed 6.52 lbs/hr and 1.8 tons per year.

Applicable Compliance Method:

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

Compliance with the annual particulate emission limitation is assumed because the permittee has agreed to a facility-wide metal melt restriction of 17,520 tons per rolling, 12 month period. If all the metal is processed in this emissions unit (P005), the PM₁₀ emissions are calculated to be 0.15 ton per year. According to AP-42 Table 12.10-9 (01/95), PM₁₀ is 70% of PE for uncontrolled shakeout activities. If applied to P005, 0.15 ton PM₁₀/year would be 0.21 ton PE/year. AP-42 Table 12.10-9 also states that PM₁₀ is 49% of PE for pouring/cooling. If applied to P005, 0.15 ton PM₁₀ would be 0.31 ton PE/year. Both applications indicate the calculated PE to be lower than the annual limit of 1.8 tons per year.

b. 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 stack visible particulate emissions limitation shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

(1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

16. P006, 5 Dry turn and bore machines

Operations, Property and/or Equipment Description:

5 Dry Turn and Bore Machines equipped with three Torrit Dust Collectors

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1-2) and e)(1)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 02-22462 issued 1/15/08	Particulate emissions (PE) from the combined dust collector stacks serving this emissions unit shall not exceed 0.008 grain per dry standard cubic foot, 0.82 pound per hour and 3.6 tons per year. See b)(2)a. Visible particulate emissions from each dust collector stack shall not exceed 5% opacity as a 6-minute average.
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1) and c)(2).

(2) Additional Terms and Conditions

- a. The dust collectors shall be in operation when the Turn and Bore Machines are in operation. The particulate emission limitations were calculated using the dust collector manufacturer's specification of 0.008 grain per dry standard cubic foot.

c) Operational Restrictions

- (1) The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The acceptable range for the pressure drop across each baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitation in section B.1.b)(1)a of this permit, shall be the following:

- a. Baghouse: 0.5 to 5.0 inches of water

- (2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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 emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each weekly visible emission check for three months, then the frequency may become monthly. If visible emissions are noted during a monthly inspection, the permittee shall revert to weekly visible emission checks until no visible emissions are documented for an entire three months, at which time the permittee may again perform checks on a monthly basis.

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

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

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

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

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;

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

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

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the

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

(3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

f) Testing Requirements

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

a. Emission Limitation:

PE from the combined dust collector stacks serving this emissions unit shall not exceed 0.008 grain per dry standard cubic foot, 0.82 pound per hour and 3.6 tons per year.

Applicable Compliance Method:

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

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (0.82 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

b. Emission Limitation:

Visible particulate emissions from each dust collector stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

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g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

17. P008, WheelabratorTumbleblast

Operations, Property and/or Equipment Description:

WheelabratorTumbleblast

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1-2) and e)(1)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 17-1517 issued 12/5/96	Particulate emissions (PE) shall not exceed 0.26 lb/hr, 0.030 grain per dry standard cubic foot and 1.12 tons per year. Particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 0.026 lb/hr and 0.11 ton per year.
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).

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1) and c)(2).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The emissions from the WheelabratorTumbleblast unit shall be vented to the Cleaning Room baghouse at all times when in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

a. Cleaning Room baghouse: 0.5 to 6.5 inches of water.

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

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

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

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

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

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

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

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

- (3) 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 emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit).

With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE and PM₁₀ emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:

- a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

- (3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:
- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

f) Testing Requirements

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

a. Emission Limitations:

PE shall not exceed 0.26 lb/hr, 0.030 grain per dry standard cubic foot and 1.12 tons per year.

Applicable Compliance Method:

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

The tpy emission limitation was developed by multiplying the short-term allowable PE limitation (0.26 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

b. Emission Limitation:

PM₁₀ emissions shall not exceed 0.026 lb/hr and 0.11 ton per year.

Applicable Compliance Method:

If required, compliance with the particulate emission limitation shall be demonstrated through emissions testing performed in accordance with the methods and procedures specified in 40 CFR Part 51, Appendix M, Method 201 or 201A.

The tpy emission limitation was developed by multiplying the short-term allowable PM₁₀ limitation (0.026 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

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

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

18. P009, 8 Centrifugal mold machines

Operations, Property and/or Equipment Description:

8 Centrifugal Mold Machines

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

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

a. None.

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

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

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 stacks serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 6.52 lbs/hr. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1), c)(2) and c)(3).

(2) Additional Terms and Conditions

a. Using the maximum hourly rate of 2 tons per hour, Table 1 of OAC rule 3745-17-11 provides the allowable particulate emissions rate of 6.52 pounds per hour.

c) Operational Restrictions

- (1) Machines 1 – 4 of this emissions unit shall vent to East Wet Scrubber, which also receives emissions from emissions unit P010. Machines 5 – 8 of this emissions unit shall vent to West Wet Scrubber. The wet scrubbers shall be operated when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The acceptable pressure drop across the wet scrubbers, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:
 - a. East Wet Scrubber: Minimum of 10.5 inches of water;
 - b. West Wet Scrubber: Minimum of 10.5 inches of water.
- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) during operation of this/these emissions unit(s), including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for any parameter deviates from the ranges established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

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

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

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

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

These range(s) and/or limit(s) for the pressure drop are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:

- a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the acceptable range;
- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the scrubber(s);
- c. the probable cause of each deviation (excursion); and
- d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

(3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(2) above:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

- (4) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubbers during the 12-month reporting period for this emissions unit:
- a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the appropriate range or exceeded the applicable limit contained in this permit;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;
 - c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the pressure drop into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- 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 stacks 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 stack visible particulate emission limitation shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.
 - b. Emission Limitation:
PE shall not exceed 6.52 lbs/hr.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

19. P010, Multipart centrifugal mold machines

Operations, Property and/or Equipment Description:

Multipart Centrifugal Mold Machine equipped with a Wet Scrubber

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1), d)(3), and e)(1)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 02-22462 issued 1/15/08	Particulate emissions (PE) from the stack shall not exceed 0.67 lb/hr and 2.92 tons per year. See b)(2)a. Visible particulate emissions from the stack shall not exceed 5% opacity as a 6-minute average.
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
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).

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. The short term and long term particulate emission limitations were calculated using the maximum production rate of 1 ton metal poured per hour and 8,760 tons metal poured per year. Therefore, as long as the amount of metal poured at this emissions unit does not exceed these maximum production rates, then compliance with the stated emission limitations can be assumed.

c) Operational Restrictions

(1) This emissions unit vents to East Wet Scrubber, which also received emissions from emissions unit P010. East Wet Scrubber shall be operated when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable pressure drop across the wet scrubber, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

a. East Wet Scrubber: Minimum of 10.5 inches of water.

(2) The permittee shall record the following information for each day the emissions unit is in operation:

a. the amount of metal poured, in tons;

b. the number of hours of operation; and

c. the average hourly rate of metal pouring, in tons per hour, calculated by dividing the daily amount of metal poured, in tons, by the number of hours of operation during the day.

(3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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 emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each weekly visible emission check for three months, then the frequency may become monthly. If visible emissions are noted during a monthly inspection, the permittee shall revert to weekly visible emission checks until no visible emissions are documented for an entire three months, at which time the permittee may again perform checks on a monthly basis.

- (4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) during operation of this/these emissions unit(s), including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for any parameter deviates from the ranges established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

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

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this

permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

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

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

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the scrubber;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
- (3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (4) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubber during the 12-month reporting period for this emissions unit:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the appropriate range or exceeded the applicable limit contained in this permit;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;
 - c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the pressure drop into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

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

a. Emission Limitation:

PE from the stack shall not exceed 0.67 lb per hour and 2.92 tons per year.

Applicable Compliance Method:

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

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.67 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

b. Emission Limitation:

Visible particulate emissions from the stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.

20. P011, 3 Foundry cutoff saws

Operations, Property and/or Equipment Description:

3 Foundry Cutoff Saws

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1), d)(2) and e)(1)
- 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 baghouse stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
c.	OAC rule 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

i. The installation and use of hoods, fans and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements:

(a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and

(b) the control equipment achieves an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the Ten Kay baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the Ten Kay baghouse, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

a. Ten Kay Baghouse): 3.0 to 10.0 inches of water.

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

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

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

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

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

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

- (3) 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 exhaust stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed from any points of capture and/or the stack, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
 - (3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:
 - a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emission unit; and
 - c. any corrective actions taken to eliminate the visible emissions.
- 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 baghouse stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

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

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

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

c. Emission Limitation:

The controlled emissions from the stack shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:

Compliance with the requirement for no visible particulate emissions from the exhaust stack, identified in this permit, shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22. If opting to comply with the outlet particulate emissions rate and if required, compliance with the 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases from the stack shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5, as appropriate.

g) Miscellaneous Requirements

(1) None.

21. P012, Grinding Stations

Operations, Property and/or Equipment Description:

Grinding Stations

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(1), d)(2) and e)(1)
- 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 dust collector stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
c.	OAC rule 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
d.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

i. The installation and use of hoods, fans and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust. Such equipment shall meet the following requirements:

(a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and

(b) the control equipment achieves an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the dust collector at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the dust collector that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitations in section B.1.b)(1)a of this permit, shall be the following:

a. Dust collector: 1.0 to 8.0 inches of water.

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

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

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

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

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

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

- (3) 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 exhaust stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed from any points of capture and/or the stack, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;

- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the dust collector was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the dust collector;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
- (3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(3) above:
 - a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emission unit; and
 - c. any corrective actions taken to eliminate the visible emissions.

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 dust collector stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

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

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

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

c. Emission Limitation:

The controlled emissions from the stack shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method:

Compliance with the requirement for no visible particulate emissions from the exhaust stack, identified in this permit, shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22. If opting to comply with the outlet particulate emissions rate and if required, compliance with the 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases from the stack shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5, as appropriate.

g) Miscellaneous Requirements

(1) None.

22. Emissions Unit Group -Casting Knock-out: F020,F021,

EU ID	Operations, Property and/or Equipment Description
F020	Main Bay and Side Floor Casting Knockout
F021	Outdoor Casting Knockout

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
- (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
- a. None.
- (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
- a. b)(1)c, c)(1), d)(4) and e)(1)
- 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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

i. Use of a water spray when knocking-out castings outdoors.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The permittee shall use the water spray when castings are knocked-out outdoors as needed to minimize or eliminate fugitive dust (and PM₁₀ emissions).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the outdoor casting knock-out operation.

(2) The purpose of the inspections is to determine the need for modifying the water spray system (spraying more or less water) or to determine the need for other control measures to minimize or eliminate the generation of fugitive dust.

(3) The permittee shall maintain records of the following information:

- a. the date of each inspection and determination if the water spray is adequate;
- b. the date and reason any required inspection was not performed;
- c. the date of each inspection where it was determined by the permittee that additional or modified control measures were necessary; and
- d. the identification of any additional or modified control measure.

(4) The permittee shall maintain records of any casting knock-out operation when the water spray was not in use. This record shall include the following:

- a. the date;
- b. the reason for not using the water spray; and
- c. any corrective action(s) taken.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of section c)(1) which is required to restrict the PM₁₀ emissions, as follows:

- a. the day when the water spray was not used when castings were knocked-out;
- b. the reason(s) for not using the water spray when castings were knocked-out; and
- c. the corrective action(s) taken.

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

- a. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.

23. Emissions Unit Group -Furnaces: F005,F006,F007,F008,F009,F013,F014,F030,

EU ID	Operations, Property and/or Equipment Description
F005	Sand Foundry Electric Induction Furnace 1
F006	Centrifugal Casting Furnace 1
F007	Centrifugal Casting Furnace 2
F008	Sand Foundry Electric Induction Furnace 4
F009	Sand Foundry Electric Induction Furnace 2
F013	Sand Foundry Electric Induction Furnace 5
F014	Centrifugal Casting Electric Induction Furnace 3
F030	Centrifugal Casting Electric Induction Furnace (H1)

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

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

a. None.

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

a. b)(1)c, c)(1), d)(1)b and e)(1)

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)	Reasonably available control measures (RACM) shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See b)(2)a.

Final Permit-to-Install and Operate

Quaker City Castings

Permit Number: P0084435

Facility ID: 0215090009

Effective Date: 9/28/2012

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D)(1)(b)	See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions and c)(1).

(2) Additional Terms and Conditions

a. RACM shall include, but not be limited to, the following:

i. keeping the operation within the building enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The metal throughout in these emissions units in combination with emissions unit F029 shall not exceed 17,520 tons per rolling, 12-month period.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information each month:

a. the total amount of metal, in tons, charged to these emissions units in combination with emissions unit F029; and

b. the rolling, 12-month total amount of metal, in tons, charged to these emissions units in combination with emissions unit F029.

(2) The permittee shall perform daily checks, when any of these emissions units are in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving these emissions units. 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 emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation (excursion) of the metal charge limitation provided in c)(1) and as recorded according to d)(1)b, as follows:
 - a. the month(s) when the metal charge limitation was exceeded;
 - b. the actual metal charge;
 - c. the probable cause of each deviation (excursion); and
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

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

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

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.

The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term d)(2) above:

- a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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:

If required, compliance with the limitation for visible emissions of fugitive dust shall be demonstrated through visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.