



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.ohio.gov

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

11/3/2009

Certified Mail

Mr. Mark DeBruin
Aesir Metals, LLC
4614 Youngstown-Poland Road
Youngstown, OH 44514

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
Yes	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0250092001
Permit Number: P0105604
Permit Type: Initial Installation
County: Mahoning

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.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.ohio.gov/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northeast District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.ohio.gov/dapc.

Sincerely,

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

Cc: Ohio EPA-NEDO

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install and Operate
for
Aesir Metals, LLC**

Facility ID: 0250092001
Permit Number: P0105604
Permit Type: Initial Installation
Issued: 11/3/2009
Effective: 11/3/2009
Expiration: 11/3/2019



Air Pollution Permit-to-Install and Operate
for
Aesir Metals, LLC

Table of Contents

- Authorization 1
- A. Standard Terms and Conditions 3
 - 1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4
 - 2. Who is responsible for complying with this permit? 4
 - 3. What records must I keep under this permit? 4
 - 4. What are my permit fees and when do I pay them?..... 4
 - 5. When does my PTIO expire, and when do I need to submit my renewal application? 4
 - 6. What happens to this permit if my project is delayed or I do not install or modify my source? 5
 - 7. What reports must I submit under this permit? 5
 - 8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? 5
 - 9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?... 5
 - 10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 6
 - 11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6
 - 12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6
 - 13. Can I transfer this permit to a new owner or operator?..... 6
 - 14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7
 - 15. What happens if a portion of this permit is determined to be invalid? 7
- B. Facility-Wide Terms and Conditions..... 8
- C. Emissions Unit Terms and Conditions 10
 - 1. F001, scrap handling..... 11
 - 2. F002, Furnace..... 16
 - 3. F003, Inoculation 20
 - 4. F004, pouring..... 25
 - 5. Operations, Property and/or Equipment Description:..... 30



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate
Permit Number: P0105604
Facility ID: 0250092001
Effective Date: 11/3/2009

Authorization

Facility ID: 0250092001
Application Number(s): A0038479
Permit Number: P0105604
Permit Description: New installation of lost foam foundry
Permit Type: Initial Installation
Permit Fee: \$2,500.00
Issue Date: 11/3/2009
Effective Date: 11/3/2009
Expiration Date: 11/3/2019
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Aesir Metals, LLC
100 South Bridge Street
Struthers, OH 44471

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 43087
(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

Chris Korleski
Director



Authorization (continued)

Permit Number: P0105604
Permit Description: New installation of lost foam foundry

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

Emissions Unit ID:	F001
Company Equipment ID:	scrap handling
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F002
Company Equipment ID:	Furnace
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F003
Company Equipment ID:	Inoculation
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F004
Company Equipment ID:	pouring
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F005
Company Equipment ID:	Shakeout
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105604

Facility ID: 0250092001

Effective Date: 11/3/2009

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105604

Facility ID: 0250092001

Effective Date: 11/3/2009

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105604

Facility ID: 0250092001

Effective Date: 11/3/2009

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) None.
2. The following emissions units contained in this permit are subject to MACT Subpart ZZZZZ: F001. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105604

Facility ID: 0250092001

Effective Date: 11/3/2009

C. Emissions Unit Terms and Conditions



1. F001, scrap handling

Operations, Property and/or Equipment Description:

Scrap and charge handling, controlled by a baghouse

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)(a)(ii)	See b)(2)a.
b.	OAC rule 3745-17-11	Particulate emissions (PE) shall not exceed 4.10 lbs/hr.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)b.
e.	OAC rule 3745-17-08	Exempt. See b)(2)c.
f.	40 CFR, Part 63, Subpart ZZZZZ	See c)(1), d)(3), and e)(4).

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the uncontrolled potential to emit for particulate emissions is less than 10 tons/year.

b. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.



- c. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- d. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10885(a)(1)	Metallic scrap management program for restricted metallic scrap
63.10885(a)(2)	Metallic scrap management program for general iron and steel scrap
63.10885(b)	Mercury requirements
63.10886	Management practices for binder formulations
63.10890(h)	If annual metal melt capacity exceeds 10,000 tons, you must comply with requirements of large foundry
63.10890(i)	Comply with applicable requirements of the General Provisions

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.



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

- (2) The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- (3) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10890(d)	Maintain files of all information for at least 5 years.
63.10890(e)(1)	Maintain records of initial notification and notification of compliance status
63.10890(e)(2)	Maintain records demonstrating compliance with the scrap restrictions
63.10890(e)(3) & (4)	Maintain records for site-specific plan for mercury switch removal if applicable
63.10890(e)(5) & (6)	Maintain records documenting binder chemical formulation
63.10890(e)(7)	Maintain records of metal melt production for each calendar year

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 permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.



- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the permittee complies with the requirements of OAC rule 3745-15-06 and none of the conditions listed in OAC rule 3745-15-06(C) are applicable to the source.
- (4) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA Northeast District Office as are required pursuant to 40 CFR Part 63, Subpart ZZZZZ, per the following sections:

63.10890(b)	Submit an initial notification of applicability
63.10890(c)	Submit a notification of compliance status
63.10890(f)	Submit semiannual compliance reports
63.10890(g)	Submit written notification of the initial classification of your foundry as a small foundry and subsequent reclassifications

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:

PE shall not exceed 4.10 lbs/hr.

Applicable Compliance Method:

Stack emissions shall be determined by multiplying the emission factor of 0.6 lbs of PE/ton of metal charged (from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Chapter 12.10, Table 12.10-7, 1/95) by the maximum capacity of 1 ton per hour, then multiplying by 90% (assuming 90% is captured). The controlled emissions are then calculated by multiplying by (1-0.9) (assuming 90% for the control efficiency for the baghouse).



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105604

Facility ID: 0250092001

Effective Date: 11/3/2009

If required, testing shall be performed as described in OAC rule 3745-17-03(B)(10).

b. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

g) Miscellaneous Requirements

(1) None.



2. F002, Furnace

Operations, Property and/or Equipment Description:

Electric induction furnace, controlled by a baghouse

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)(a)(ii)	See b)(2)a.
b.	OAC rule 3745-17-11	Particulate emissions (PE) shall not exceed 4.10 lbs/hr.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)b.
e.	OAC rule 3745-17-08	Exempt. See b)(2)c.

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the uncontrolled potential to emit for particulate emissions is less than 10 tons/year.

b. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.



- c. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
 - d. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
- 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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
 - (2) The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- e) Reporting Requirements
- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee



shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the permittee complies with the requirements of OAC rule 3745-15-06 and none of the conditions listed in OAC rule 3745-15-06(C) are applicable to the source.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

PE shall not exceed 4.10 lbs/hr.

Applicable Compliance Method:

Stack emissions shall be determined by multiplying the emission factor of 0.9 lbs of PE/ton of metal charged (from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Chapter 12.10, Table 12.10-3, 1/95) by the maximum capacity of 1 ton per hour, then multiplying by 90% (assuming 90% is captured). The controlled emissions are then calculated by multiplying by (1-0.9) (assuming 90% for the control efficiency for the baghouse).

If required, testing shall be performed as described in OAC rule 3745-17-03(B)(10).

- b. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0105604

Facility ID: 0250092001

Effective Date: 11/3/2009

g) Miscellaneous Requirements

(1) None.



3. F003, Inoculation

Operations, Property and/or Equipment Description:

Ductile iron inoculation, controlled by a baghouse

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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(C) Voluntary Restriction to Avoid BAT	Particulate emissions (PE) shall not exceed 9.9 TPY. See b)(2)a and b)(2)e.
b.	OAC rule 3745-17-11	PE shall not exceed 4.10 lbs/hr.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)b.
e.	OAC rule 3745-17-08	Exempt. See b)(2)c.

(2) Additional Terms and Conditions

a. Permit Number P0105604 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90% and a minimum capture efficiency of 90%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

b. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.



- c. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
 - d. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
 - e. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.
- 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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
 - (2) The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.



- (3) The acceptable range established for the pressure drop across the baghouse is between 2 to 6 inches of water, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (4) 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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

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.



- (5) 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 Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

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 permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the permittee complies with the requirements of OAC rule 3745-15-06 and none of the conditions listed in OAC rule 3745-15-06(C) are applicable to the source.
- (4) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):
 - 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 range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - 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 baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;



- d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in “a” 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 emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):
 - a. **Emission Limitation:**

PE not to exceed 4.10 lbs/hr.

Applicable Compliance Method:

Stack emissions shall be determined by multiplying the emission factor of 4 lbs of PE/ton of metal charged (from WebFIRE, 12/05) by the maximum capacity of 1 ton per hour, then multiplying by 90% (assuming 90% is captured). The controlled emissions are then calculated by multiplying by (1-0.9) (assuming 90% for the control efficiency for the baghouse).

If required, testing shall be performed as described in OAC rule 3745-17-03(B)(10).
 - b. **Emission Limitation:**

PE shall not exceed 9.9 TPY.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation by multiplying the maximum hourly PE rate from the stack and fugitive, 0.76 lb/hr, by the maximum annual number of hours of operation (8760 hours/yr), and then dividing by 2000 lbs/ton.
 - c. **Emission Limitation:**

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.
- g) **Miscellaneous Requirements**
- (1) None.



4. F004, pouring

Operations, Property and/or Equipment Description:

Pouring and cooling, controlled by a baghouse

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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(C) Voluntary Restriction to Avoid BAT	Particulate emissions (PE) shall not exceed 9.9 TPY. See b)(2)a and b)(2)e.
b.	OAC rule 3745-17-11	PE shall not exceed 4.10 lbs/hr.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)b.
e.	OAC rule 3745-17-08	Exempt. See b)(2)c.

(2) Additional Terms and Conditions

a. Permit Number P0105604 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90% and a minimum capture efficiency of 90%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

b. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.



- c. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- d. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
- e. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

- (2) The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.



- (3) The acceptable range established for the pressure drop across the baghouse is between 2 to 6 inches of water, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (4) 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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

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

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

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

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

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



- (5) 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 Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

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 permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the permittee complies with the requirements of OAC rule 3745-15-06 and none of the conditions listed in OAC rule 3745-15-06(C) are applicable to the source.
- (4) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):
 - 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 range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - 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 baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;



- d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in “a” 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 emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:

PE not to exceed 4.10 lbs/hr.

Applicable Compliance Method:

Stack emissions shall be determined by multiplying the emission factor of 4.2 lbs of PE/ton of metal charged (from AP-42, “Compilation of Air Pollutant Emission Factors”, 5th Edition, Chapter 12.10, Table 12.10-7, 1/95) by the maximum capacity of 1 ton per hour, then multiplying by 90% (assuming 90% is captured). The controlled emissions are then calculated by multiplying by (1-0.9) (assuming 90% for the control efficiency for the baghouse).

If required, testing shall be performed as described in OAC rule 3745-17-03(B)(10).
 - b. Emission Limitation:

PE shall not exceed 9.9 TPY.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation by multiplying the maximum hourly PE rate from the stack and fugitive, 0.80 lb/hr, by the maximum annual number of hours of operation (8760 hours/yr), and then dividing by 2000 lbs/ton.
 - c. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.
- g) Miscellaneous Requirements
- (1) None.



5. Operations, Property and/or Equipment Description:

Shakeout, controlled by a baghouse

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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(C) Voluntary Restriction to Avoid BAT	Particulate emissions (PE) shall not exceed 9.9 TPY. See b)(2)a and b)(2)e.
b.	OAC rule 3745-17-11	PE shall not exceed 4.10 lbs/hr.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)d.
d.	OAC rule 3745-17-07(B)	Exempt. See b)(2)b.
e.	OAC rule 3745-17-08	Exempt. See b)(2)c.

(2) Additional Terms and Conditions

a. Permit Number P0105604 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90% and a minimum capture efficiency of 90%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

b. This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.



- c. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- d. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
- e. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

- (2) The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.



- (3) The acceptable range established for the pressure drop across the baghouse is between 2 to 6 inches of water, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (4) 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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

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.



- (5) 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 Ohio EPA Northeast District Office. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

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 permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.
- (3) An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the permittee complies with the requirements of OAC rule 3745-15-06 and none of the conditions listed in OAC rule 3745-15-06(C) are applicable to the source.
- (4) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):
 - 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 range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - 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 baghouse;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;



- d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in “a” 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 emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

PE not to exceed 4.10 lbs/hr.

Applicable Compliance Method:

Stack emissions shall be determined by multiplying the emission factor of 3.2 lbs of PE/ton of metal charged (from AP-42, “Compilation of Air Pollutant Emission Factors”, 5th Edition, Chapter 12.10, Table 12.10-7, 1/95) by the maximum capacity of 1 ton per hour, then multiplying by 90% (assuming 90% is captured). The controlled emissions are then calculated by multiplying by (1-0.9) (assuming 90% for the control efficiency for the baghouse).

If required, testing shall be performed as described in OAC rule 3745-17-03(B)(10).

b. Emission Limitation:

PE shall not exceed 9.9 TPY.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual emission limitation by multiplying the maximum hourly PE rate from the stack and fugitive, 0.61 lb/hr, by the maximum annual number of hours of operation (8760 hours/yr), and then dividing by 2000 lbs/ton.

c. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

g) Miscellaneous Requirements

(1) None.