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

6/24/2013

Certified Mail

Mr. Mark DeBruin
Scott Engineering and Procurement, Inc.
154 Commerce Blvd.
Loveland, OH 45140-7726

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1431004456
Permit Number: P0114205
Permit Type: OAC Chapter 3745-31 Modification
County: Hamilton

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

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

Sincerely,

Michael W. Ahern

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

Cc: SWOAQA

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
Scott Engineering and Procurement, Inc.

Facility ID:	1431004456
Permit Number:	P0114205
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	6/24/2013
Effective:	6/24/2013
Expiration:	3/19/2018

Division of Air Pollution Control
Permit-to-Install and Operate
for
Scott Engineering and Procurement, Inc.

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Authorization

Facility ID:	1431004456
Application Number(s):	A0047554
Permit Number:	P0114205
Permit Description:	Chapter 31 modification to include additional mold coating to the Mold Making Operation (P906).
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$1,250.00
Issue Date:	6/24/2013
Effective Date:	6/24/2013
Expiration Date:	3/19/2018

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Scott Engineering and Procurement, Inc.
119 Northeast Drive
Loveland, OH 45140

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0114205
Permit Description: Chapter 31 modification to include additional mold coating to the Mold Making Operation (P906).

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

Emissions Unit ID:	**P906**
Company Equipment ID:	Mold Sand Mixing/Mold Making
Superseded Permit Number:	P0112182
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

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

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

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is takenby 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 Southwest Ohio Air Quality Agency 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[1] 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.

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

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

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

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

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

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

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

B. Facility-Wide Terms and Conditions

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

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

      (1) None.

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

      (1) B.3.

2. The Ohio EPA has determined that this facility may be applicable to the requirements of an area source MACT/GACT rule that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, 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 these rules are in effect and are enforceable by U.S. EPA. For more information on the area sourcerules, please refer to the follow U.S. EPA website:**http://www.epa.gov/ttn/atw/area/arearules.html**

3. Facility Wide Production Limitations for emissions units F001, F002, F003, F004, F005, P901 thru P903 and P905 thru P907

   a) The following production (throughput) limits shall not be exceeded:

      (1) 7.25 Tons per hour of iron and/or steel poured; and

      (2) 32,000 Tons per year of iron and/or steel poured, based on a rolling 12-month summation.

      (3) To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

Month	Maximum Allowable Cumulative Production
1	16,000
1-2	19,000
1-3	22,000
1-4	25,000
1-5	32,000

1-6	32,000
1-7	32,000
1-8	32,000
1-9	32,000
1-10	32,000
1-11	32,000
1-12	32,000

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

b) The permittee shall collect and record the following information:

(1) hourly records for the total combined tons of steel and iron poured;

(2) monthly records for the total combined tons of steel and iron poured (the summation of the values recorded in B.3.b)(1) for all hours the emissions unit was in operation during the calendar month); and

(3) the rolling 12-month summation for the total combined tons of steel and iron poured (the value recorded in B.3.b)(2) for the current month's production added to the previous 11-calendar months of operation).

c) The permittee shall submit quarterly deviation (excursion) reports that identify each exceedance of the production limitations specified in B.3.a). Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

For the purposes of this permit, the pouring operations at this facility are associated with emissions unit F003-Pouring and Cooling.

d) As part of the synthetic minor demonstration along with B.3.a) and b), there are two permit exempt emissions units (4.30 mmBtu/hr natural gas-fired preheater and a 2.2 mmBtu/hr natural gas-fired ladle preheater) with the following emissions:

(1) 0.22 ton per year of PE/PM10/PM2.5;

(2) 2.34 tons per year of CO;

(3) 0.15 ton per year of VOC;

(4) 2.79 tons per year of NOx; and

(5) 0.02 ton per year of SO2.

4. The following abbreviations are used throughout this permit.

NOx = Nitrogen Oxides

CO = Carbon Monoxide

OC = Organic Compounds

VOC = Volatile Organic Compounds

PE = Particulate matter measurable by the applicable test methods in 40 CFR Part 60, Appendix A, "Standards of Performance for New Stationary Sources"

PM10 = Particulate matter, both filterable and condensable, with an aerodynamic diameter less than or equal to a nominal ten micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix J and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

PM2.5=Particulate matter, both filterable and condensable, with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix L and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

SO2 = Sulfur dioxide

HAP = Hazardous Air Pollutant

TPY = Tons per year

MM = Million

CFR = Code of Federal Regulations

OAC = Ohio Administrative Code

gr/acf = grains per actual cubic foot

C. Emissions Unit Terms and Conditions

1. F001, Inoculation

Operations, Property and/or Equipment Description:

Inoculation of Iron and Steel vented to 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. B.3, C.1.b)(1)a., b)(2)c., c)(1), d)(2) thru d(5), e)(2), f)(1)a. and b.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 (filterable + condensable) emissions exiting the baghouse associated with emissions units P901- P903, P905, and F001 shall not exceed 17.70 tons per year (TPY) based on a rolling 12-month summation. See Facility Wide Term B.3, b)(2)c., and c)(1), below.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001.	The VOC emissions from this emissions unit shall not exceed 0.005 lb. of VOC/ton of metal poured and 0.08 TPY, as a rolling 12-month summation. The lb. of VOC/ton of metal poured emission limitation is based on the emissions unit's potential to emit.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Therefore, monitoring/recordkeeping and reporting is not required. The requirements of this rule also include compliance with OAC rules 3745-31-05(D)(1)b, 3745-17-07(A)(1), and 3745-17-11(B). See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions unit F001 shall not exceed 0.009 gr/acf.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.
f.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

c. The PM/PM10/PM2.5 emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

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

a. the PE/PM10/PM2.5 emission rate exiting the baghouse associated with emissions units P901-P903, P905, and F001 for each month; and

b. the rolling, 12-month summation of the PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units P901-P903, P905, and F001.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouse associated with emissions units P901-P903, P905, and F001.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit (identified as Baghouse A in PTIO application A0047496 for permit P0114091.)

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office

or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

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

b. Emission Limitation:

The total combined PE/PM10/PM2.5 (filterable + condensable) emissions exiting the baghouse associated with emissions units P901- P903, P905, and F001 shall not exceed 17.70 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((45,000 acfm x 0.009 gr/acfm)/7000 gr/lb.)x 60 min/hr. = 3.47 lbs of filterable PE/PM10/PM2.5/hr

(3.47 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 15.2 TPY

*Condensable PE/PM10/PM2.5 from Electric Induction Furnaces (P902, P903, and P905) = 2.5 TPY.

Filterable + Condensable PE/PM10/PM2.5 = 15.2 + 2.5 = 17.7 TPY.

See section C.9.f)(1)b for emissions units P902, P903, and P905 for the Condensable PE/PM10/PM2.5 calculations.

c. Emission Limitation:

The VOC emissions from emissions unit F001 shall not exceed 0.005 lb. of VOC/ton of metal poured and 0.08 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

Emission Factor (E.F.) = 0.005 lb. of VOC/tons of metal poured, taken from USEPA Webfire SCC 30400310

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(0.005 lb. of VOC/ton x 32,000 TPY)/2000 lbs./ton = 0.08 TPY.

d. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources.

g) Miscellaneous Requirements

(1) None.

2. F002, Mold Sand Handling

Operations, Property and/or Equipment Description:

Sand and additive unloading, storage, and transfer vented to 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. B.3, C.2.b)(1)a., b)(2)a., c)(1), d)(2) thru d)(5), e)(2), f)(1)a. thru b.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions units F002 and P906 shall not exceed 11.93 TPY based on a rolling 12-month summation. See Facility Wide Terms B.3, b)(2)a., and c)(1), below.
b.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions unit F002 shall not exceed 0.009 gr/acf.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

a. The PM/PM10/PM2.5 emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

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

a. the PE/PM10/PM2.5 emission rate exiting the baghouses associated with emissions units F002 and P906 for each month; and

b. the rolling, 12-month summation of the PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions units F002 and P906.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouses associated with emissions units F002 and P906.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouses controlling this emissions unit (identified as Baghouses D and E in PTIO application A0047496 for permit P0114091.)

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum

material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

The total combined filterable PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions units F002 and P906 shall not exceed 11.93 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((35,314 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 2.72 lbs of filterable PE/PM10/PM2.5/hr

(2.72 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 11.93 TPY

Condensable PE/PM10/PM2.5 from F002 and P906 = 0.0 TPY.

c. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.

3. F003, Pouring/Cooling

Operations, Property and/or Equipment Description:

Molten Iron and Steel Pouring and Cooling line vented to 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. d)(5) - d)(7) and e)(4).

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

a. B.3, C.3.b)(1)a., b)(2)c, c)(1), d)(2) thru d(4), d)(8), e)(2), f)(1)a. thru 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 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The PE/PM10/PM2.5 (filterable + condensable) emissions from this emissions unit shall not exceed 13.75 TPY based on a rolling 12-month summation. The total combined CO emissions from emissions units F003 and F004 shall not exceed 89.59 TPY, as a rolling 12-month summation. The total combined VOC emissions from emissions units F003 and F004 shall not exceed 39.34 TPY, as a rolling 12-month summation. See Facility Wide Terms B.3, b)(2)c., and c)(1), below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001.	The lead emissions from emissions unit F003 shall not exceed 1.379E-04 TPY, as a rolling 12-month summation. The NOx emissions from emissions unit F003 shall not exceed 0.01 lb./ton of metal poured and 0.16 TPY, as a rolling 12-month summation. The SO2 emissions from emissions unit F003 shall not exceed 0.02 lb./ton of metal poured and 0.32 TPY, as a rolling 12-month summation. The requirements of this rule also include compliance with OAC rules 3745-31-05(D)(1)b, 3745-17-07(A)(1), and 3745-17-11(B). See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions unit F003 shall not exceed 0.009 gr/acf. The total combined VOC emissions from emissions units F003 and F004 shall not exceed 39.34 TPY, as a rolling 12-month summation.* The total combined CO emissions from emissions units F003 and F004 shall not exceed 89.59 TPY, as a rolling 12-month summation.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
f.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). SO2 emissions from this emissions unit shall not exceed 113.1 lb./hr.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the lead, NOx, and SO2 emissions from this air contaminant source since the uncontrolled potential to emit for lead, NOx, and SO2 are each less than 10 tons/year.

c. The PM/PM10/PM2.5 emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

(5) The FEPTIO application for emissions units F003 and F004 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Benzene w/ option* to list all toxics, covered under the worst-case toxic modeled.

TLV (ppm): 0.5 (*for which toxic, if using worst case)

Maximum Hourly Emission Rate (lbs/hr): 0.80 (*for which toxic, if using worst case)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.87

MAGLC (ug/m3): 38

The permittee, has demonstrated that emissions of Benzene, from emissions unit(s) F003 and F004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(8) The permittee shall calculate and maintain monthly records and the rolling 12-month summation for PE/PM10/PM2.5, VOC, and CO emissions.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5, VOC, and CO.

(3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit.

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

(4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

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. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit (identified as Baghouse B in PTIO application A0047496 for permit P0114091.) and the 5.5992 lbs of CO/ton of metal poured emission factor.

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit, the permittee shall use 40 CFR Part 60 Appendix A Methods 1-5.

For CO emission factor of 5.5992 lbs of CO/ton of metal poured, the permittee shall use 40 CFR Part 60 Appendix A Method 10.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

PE/PM10/PM2.5 (filterable + condensable) emissions from this emissions unit shall not exceed 13.75 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((20,000 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 1.54 lbs of filterable PE/PM10/PM2.5/hr

(1.54 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 6.76 TPY

Condensable PE/PM10/PM2.5

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.437 lb of Condensable PE/PM10/PM2.5/Ton of metal melted (Emission Factor based on Gray Iron Foundry Testing Conducted at Metal Technologies, IDEM PSD Permit T033-21760-00042, See PTIO Application).

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(0.437 lb of PE/PM10/PM2.5/ton x 32,000 TPY)/2000 lbs/ton = 6.99 TPY

Total PE/PM10/PM2.5 = filterable + condensable = 6.76 + 6.99 = 13.75 TPY.

c. Emission Limitation:

The total combined VOC emissions from emissions units F003 and F004 shall not exceed 39.34 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 2.459 lbs of VOC/tons of metal poured, **CERP study "Pre-Production Air Emission Test Report 20/80 Western/Southern Bentonite Clay Ratios" (Technikon #RE100114 DQ, April 25, 2001).

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(2.459 lb of VOC/ton x 32,000 TPY)/2000 lbs/ton = 39.34 TPY.

d. Emission Limitation:

The total combined CO emissions from emissions units F003 and F004 shall not exceed 89.59 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 5.5992 lbs of CO/tons of metal poured, *CERP "Quality Improvement: Star Mold and Step Core Emission Comparison" (Technikon # 1411-619 GU, December 2005).

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation.

(5.5992 lb of CO/ton x 32,000 TPY)/2000 lbs/ton = 89.59 TPY.

e. Emission Limitation:

The lead emissions exiting the baghouse associated with this emissions unit shall not exceed 1.379E-04 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.000862 lb of lead/ton of metal poured, Emission Factor based on Gray Iron Foundry Testing Conducted by CERP, Foundry Process Emission Factors; Baseline Emissions from Automotive Foundries, January 19, 1999, Table 5.12. See PTIO Application for details.

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(((0.000862 lb of lead/ton x 32,000 TPY)/2000 lbs/ton)*(1-0.99)) CE for baghouse = 1.379E-04 TPY lead.

f. Emission Limitation:

The NOx emissions from this emissions unit shall not exceed 0.01 lb/ton of metal poured; and.

The NOx emissions from this emissions unit shall not exceed 0.160 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.01 lb of NOx/ton of metal poured, USEPA Webfire SCC 30400320 (Pouring/Casting).

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation.

((0.01 lb of NOx/ton x 32,000 TPY)/2000 lbs/ton) = 0.16 TPY NOx.

g. Emission Limitation:

The SO2 emissions from emissions unit F003 shall not exceed 0.02 lb/ton of metal poured.

SO2 emissions from this emissions unit shall not exceed 113.1 lbs./hr.

The SO2 emissions from this emissions unit shall not exceed 0.32 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Hourly Production Rate) = lb/hr

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.02 lb of SO2/ton of metal poured, USEPA Webfire SCC 30400320 (Pouring/Casting)

Hourly Production Rate = Maximum Production of 7.25 tons per hour of metal poured

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(0.02 lb. of SO2/T x 7.25 TPH) = 0.15 lb./hr. of SO2.

((0.02 lb. of SO2/T x 32,000 TPY)/2000 lbs/ton) = 0.32 TPY of SO2.

Compliance with the short term SO2 emission rate of 0.02 lb of SO2/ton of metal poured, if required, shall be based on emissions testing performed in accordance with U.S. EPA test method 6, 40 CFR 60 Appendix A.

The 113.1 lbs./hr. of SO2 limitation listed above was derived by the procedures listed in OAC rule 3745-18-06(E)(2).

h. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources).

g) Miscellaneous Requirements

(1) None.

4. F004, Shakeout

Operations, Property and/or Equipment Description:

Sand Shake Area vented to 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. d)(5)-d)(7) and e)(4).

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

a. B.3, C.4.b)(1)a, b)(2)c, c)(1), d)(2), thru d)(4), d(8), e)(2), f)(1)a. thru 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 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The PE/PM10/PM2.5 emissions (filterable + condensable) from this emissions unit shall not exceed 23.8 TPY based on a rolling 12-month summation. The total combined CO emissions from emissions units F003 and F004 shall not exceed 89.59 TPY, as a rolling 12-month summation. The total combined VOC emissions from emissions units F003 and F004 shall not exceed 39.34 TPY, as a rolling 12-month summation. See Facility Wide Terms B.3, b)(2)c., and c)(1), below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001.	The lead emissions from emissions unit F004 shall not exceed 2.016E-05 TPY, as a rolling 12-month summation. The requirements of this rule also include compliance with OAC rules 3745-31-05(D)(1)b, 3745-17-07(A)(1), and 3745-17-11(B). See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions unit F004 shall not exceed 0.009 gr/acf. The total combined VOC emissions from emissions units F003 and F004 shall not exceed 39.34 TPY, as a rolling 12-month summation. The total combined CO emissions from emissions units F003 and F004 shall not exceed 89.59 TPY, as a rolling 12-month summation.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
f.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S.

EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

c. The PM/PM10/PM2.5 emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

(5) The FEPTIO application for emissions units F003 and F004 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Benzene w/ option* to list all toxics, covered under the worst-case toxic modeled.

TLV (ppm): 0.5 (*for which toxic, if using worst case)

Maximum Hourly Emission Rate (lbs/hr): 0.80 (*for which toxic, if using worst case)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.87

MAGLC (ug/m3): 38

The permittee, has demonstrated that emissions of Benzene, from emissions unit(s) F003 and F004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(8) The permittee shall calculate and maintain monthly records and the rolling 12-month summation for PE/PM10/PM2.5, VOC, and CO emissions.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 , VOC, and CO.

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

(4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

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. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit (identified as Baghouse C in PTIO application A0047496 for permit P0114091) and the 5.5992 lbs of CO/ton of metal poured emission factor.

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit, the permittee shall use 40 CFR Part 60 Appendix A Methods 1-5.

For CO emission factor of 5.5992 lbs of CO/ton of metal poured emission factor, the permittee shall use 40 CFR Part 60 Appendix A Method 10.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

PE/PM10/PM2.5 (filterable + condensable) emissions from this emissions unit shall not exceed 23.8 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((21,189 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 1.63 lbs of filterable PE/PM10/PM2.5/hr

(1.63 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 7.16 TPY

Condensable PE/PM10/PM2.5.

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 1.04 lb of Condensable PE/PM10/PM2.5/Ton of metal melted Emission Factor based on Gray Iron Foundry Testing Conducted at Metal Technologies, IDEM PSD Permit T033-21760-00042, See PTIO Application.

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(1.04 lb. of PE/PM10/PM2.5/ton x 32,000 TPY)/2000 lbs/ton = 16.64 TPY

Total PE/PM10/PM2.5 = filterable + condensable = 7.16 + 16.64 = 23.8 TPY.

c. Emission Limitation:

The total combined VOC emissions from emissions units F003 and F004 shall not exceed 39.34 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 2.459 lbs. of VOC/tons of metal poured, CERP study "Pre-Production Air Emission Test Report 20/80 Western/Southern Bentonite Clay Ratios" (Technikon #RE100114 DQ, April 25, 2001)

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(2.459 lb. of VOC/ton x 32,000 TPY)/2000 lbs./ton = 39.34 TPY.

d. Emission Limitation:

The total combined CO emissions from emissions units F003 and F004 shall not exceed 89.59 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 5.5992 lbs. of CO/tons of metal poured, CERP "Quality Improvement: Star Mold and Step Core Emission Comparison" (Technikon # 1411-619 GU, December 2005)

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation.

(5.5992 lb of CO/ton x 32,000 TPY)/2000 lbs/ton = 89.59 TPY.

e. Emission Limitation:

The lead emissions exiting the baghouse associated with this emissions unit shall not exceed 2.016E-05 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.000126 lb of lead/ton of metal poured, Emission Factor based on Gray Iron Foundry Testing Conducted by CERP, CERP Foundry Process Emission Factors; Baseline Emissions from Automotive Foundries, January 19, 1999, Table 5.12. See PTIO Application for details.

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(((0.000126 lb of lead/ton x 32,000 TPY)/2000 lbs/ton)*(1-0.99)) CE for baghouse = 2.016E-05 TPY lead.

f. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.

5. F005, Shot Blast and Cleaning Area

Operations, Property and/or Equipment Description:

Blast cleaning, grinding, and finishing of iron and steel castings vented to 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. B.3, C.5.b)(1)a., b)(2)c., c)(1), d)(2) thru (5), e)(2), f)(1a. and b.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 shall not exceed 1.01 TPY based on a rolling 12-month summation. See Facility Wide Terms B.3, b)(2)c., and c)(1), below.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001.	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 shall not exceed 0.009 gr/acf. The requirements of this rule also include compliance with OAC rules 3745-31-05(D)(1)b, 3745-17-07(A)(1), and 3745-17-11(B). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
e.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to install P0114205 for this contaminant source takes into account the following volunteering restrictions (including use of any applicable air pollution control equipment) as proposed by the permitttee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

i. 32000 tons per year of iron and/or steel poured;

ii. baghouse associated with emissions units F005 and P907 shall not exceed 0.009 gr/acf; and

iii. 1.01 TPY based on a rolling 12-month summation of PE/PM10/PM2.5 emissions from emission units F005 and P907 combined.

c. The PE/PM10/PM2.5 emissions from emissions unit F005 shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

(5) The permittee shall calculate and maintain monthly records of the PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 and the rolling 12-month emissions of PE/PM10/PM2.5 exiting the baghouse associated with emissions units F005 and P907.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouse associated with emissions units F005 and P907.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouses controlling this emissions unit (identified as Baghouse F in PTIO application A0047496 for permit P0114091.)

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

The total combined filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 shall not exceed 1.01 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((3,000 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 0.23 lb. of filterable PE/PM10/PM2.5/hr.

(0.23 lb. of PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 1.01 TPY.

c. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous

(1) None.

6. P901, Scrap and Charge Handling

Operations, Property and/or Equipment Description:

Scrap material handling and preparation (indoor portion of operations vented to 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. B.3, C.6.b)(1)a., b)(2)a., c)(1), d)(2) thru (5), e)(2), f)(1)a., b. and 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 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 (filterable + condensable) emissions exiting the baghouse associated with emissions units P901-P903, P905, and F001 shall not exceed 17.70 TPY based on a rolling 12-month summation. Fugitive PE/PM10/PM2.5 emissions from this emissions unit shall not exceed 3.17 TPY based on a rolling 12-month summation. See Facility Wide Term B.3, b)(2)a., and c)(1), below.
b.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions unit P901 shall not exceed 0.009 gr/acf.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
d.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

a. The indoor PM/PM10/PM2.5 emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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

permitteedetermines 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.

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

(5) The permittee shall calculate and maintain monthly records of the PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units P901-P903, P905, and F001 and the rolling 12-month emissions of PE/PM10/PM2.5 exiting the baghouse associated with emissions units P901-P903, P905, and F001.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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;

c. 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; and

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouse associated with emissions units P901-P903, P905, and F001.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit (identified as Baghouse A in PTIO application A0047496 for permit P0114091).

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

The total combined PE/PM10/PM2.5 (filterable + condensable) emissions exiting the baghouse associated with emissions units P901-P903, P905, and F001 shall not exceed 17.70 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((45,000 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 3.47 lbs of filterable PE/PM10/PM2.5/hr

(3.47 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 15.2 TPY

*Condensable PE/PM10/PM2.5 from Electric Induction Furnaces (P902, P903, and P905) = 2.5 TPY.

Filterable + Condensable PE/PM10/PM2.5 = 15.2 + 2.5 = 17.7 TPY.

See section C.9.f)(1)b. for emissions units P902, P903, and P905 for the Condensable PE/PM10/PM2.5 calculations.

c. Emission limitation

Fugitive PE/PM10/PM2.5 emissions from this emissions unit shall not exceed 3.17 TPY based on a rolling 12-month summation.

((E.F. x Maximum Scrap Throughput) x CE)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.6 lb PE/PM10/PM2.5/Ton of metal, Emission Factor Taken from AP 42 Table 12.10-7(1/95).

C.E. - A 67 percent CE is assumed for clean scrap and covering of outdoor iron and steel storage piles and handling of other charge materials in containerized form.

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

((0.6 lb of PE/PM10/PM2.5/ton x 32,000 TPY)*(1-0.67)/2000 lbs/ton = 3.17 TPY.

d. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average; and

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.

7. P906, Mold Sand Mixing/Mold Making

Operations, Property and/or Equipment Description:

Mold Sand Mixing and Making Lines vented to 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. B.3, C.7.b)(1)a.,b)(2)a., c)(1), d)(2) thru (6), e)(2), f)(1)a.-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 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions units F002 and P906 shall not exceed 11.93 TPY based on a rolling 12-month summation. The VOC emissions from this emissions unit shall not exceed 38.4 TPY, as a rolling 12-month summation. See Facility Wide Terms B.3, b)(2)a., and c)(1), below.
b.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with P906 shall not exceed 0.009 gr/acf.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The VOC emissions from this emissions unit shall not exceed 38.4 TPY, as a rolling 12-month summation.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
d.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

a. The PM/PM10/PM2.5 emissions from emissions unit P906 shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

(5) The permittee shall calculate and maintain monthly records of the PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions units F002 and P906 and the rolling 12-month emissions of PE/PM10/PM2.5 exiting the baghouses associated with emissions units F002 and P906.

(6) The permitte shall collect and record the following information on a monthly basis:

a. the name and VOC content, in lbs/gallon, of each mold release agent employed;

b. the amount, in gallons, of each mold release agent employed;

c. the VOC emissions from mold release agents employed [summation of d)(6)a. * d)(6)b. for each mold release agent employed].

d. the name and VOC content, in lbs/gallon, of each mold coating employed;

e. the amount, in gallons, of each mold coating employed;

f. the VOC emissions from mold coatings employed [summation of d)(6)d. * d)(6)e. for each mold coating employed];

g. the monthly VOC emissions total, in tons, for all mold releases agents and mold coatings employed [((d)(6)c. + d)(6)f.)/2000); and

h. the rolling, 12-month summation for VOC emissions [the total VOC emissions recorded in d)(6)g. for the current month added to the values recorded in d)(6)g. for the previous 11 calendar months]

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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;

c. 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;

d. all exceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouses associated with emissions units F002 and P906; and

e. allexceedances of the rolling, 12-month VOC emission limitation for P906.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouses controlling this emissions unit (identified as Baghouses D and E in PTIO application A0047554 for permit P0114205.)

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire

data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

b. Emission Limitation:

The total combined filterable PE/PM10/PM2.5 emissions exiting the baghouses associated with emissions units F002 and P906 shall not exceed 11.93 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((35,314 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 2.72 lbs of filterable PE/PM10/PM2.5/hr

(2.72 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 11.93 TPY.

c. Emission Limitation:

The VOC emissions from emissions unit P906 shall not exceed 38.4 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the information recorded in d)(6)h.

d. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources).

g) Miscellaneous Requirements

(1) None.

8. P907, Core Making Area

Operations, Property and/or Equipment Description:

Core making area vented to 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. B.3, C.8.b)(1)a., b)(2)d., c)(1), d)(2) thru (5), e)(2), f)(1)a. and b.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 shall not exceed 1.01 TPY based on a rolling 12-month summation. See Facility Wide Terms B.3, b)(2)d., and c)(1), below.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001.	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emission units F005 and P907 shall not exceed 0.009 gr/acf. The VOC emissions from this emissions unit shall not exceed 0.02 lb/hr and 0.07 TPY, as a rolling 12-month summation.* *The VOC emission limitations are based on the emissions unit's potential to emit.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Therefore, monitoring/recordkeeping and reporting is not required. The requirements of this rule also include compliance with OAC rules 3745-31-05(D)(1)b, 3745-17-07(A)(1), and 3745-17-11(B). See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b and (2)c.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
e.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(D)(1)(b).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

c. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to install P0114205 for this contaminant source takes into account the following volunteering restrictions (including use of any applicable air pollution control equipment) as proposed by the permitttee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

i. 32000 tons per year of iron and/or steel poured;

ii. baghouse associated with emissions units F005 and P907 that shall not exceed 0.009 gr/acf; and

iii. 1.01 TPY based on a rolling 12-month summation of PM/PM10/PM2.5 emissions from emissions units F005 and P907 combined.

d. The PM/PM10/PM2.5 emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

(5) The permittee shall calculate and maintain monthly records of the PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 and the rolling 12-month emissions of PE/PM10/PM2.5 exiting the baghouse associated with emissions units F005 and P907.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouse associated with emissions units F005 and P907.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit (identified as Baghouse F in PTIO application A0047496 for permit P0114091).

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum

material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

The total combined filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F005 and P907 shall not exceed 1.01 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((3,000 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 0.23 lbs of filterable PE/PM10/PM2.5/hr

(0.23 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 1.01 TPY.

c. Emission Limitation:

The VOC emissions from P907 shall not exceed 0.07 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(Maximum VOC content x Maximum annual usage)/ 2000 lbs/ton = TPY

Where:

Max VOC content = 0.28 lb/gallon

Max annual usage = 526 gallons/year

(0.28 lb. of VOC per gallon x 526 gallons/year)/2000 lbs./ton = 0.07 TPY.

d. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.

9. Emissions Unit Group -Electric Induction Furnaces 1-3: P902, P903, and P905

EU ID	Operations, Property and/or Equipment Description
P902	7 Ton/Hr Electric Induction Furnace vented to a baghouse.
P903	7 Ton/Hr Electric Induction Furnace vented to a baghouse.
P905	0.25 Ton/Hr Electric Induction Furnace vented to 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. B.3, C.9.b)(1)a., b)(2)c., c)(1), d)(2) thru (5), e)(2), f)(1)a. and b.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor Limitation to avoid PSD review and Title V Applicability.	The total combined PE/PM10/PM2.5 (filterable + condensable) emissions exiting the baghouse associated with emissions units P901- P903, P905, and F001 shall not exceed 17.70 TPY based on a rolling 12-month summation. See Facility Wide Term B.3, b)(2)c., and c)(1) below.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001.	The total combined VOC emissions from emissions units P902, P903, and P905 shall not exceed 0.119 lb/ton of metal poured and 1.9 TPY, as a rolling 12-month summation.*

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The total combined lead emissions from emissions units P902, P903, and P905 shall not exceed 8.93 x 10-4 TPY, as a rolling 12-month summation.* The VOC and lead emission limitations are based on the emissions unit's potential to emit. Therefore, monitoring/recordkeeping and reporting is not required. The requirements of this rule also include compliance with OAC rules 3745-31-05(D)(1)b, 3745-17-07(A)(1), and 3745-17-11(B). See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
d.	ORC 3704.03(T)	Filterable PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units P902, P903, and P905 shall not exceed 0.009 gr/acf.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
f.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA

approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

c. The PM/PM10/PM2.5 emissions from the emissions units P902, P903, and P905 shall be vented to a baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The building housing this emissions unit shall be maintained under negative pressure as required by this permit whenever the emissions unit is in operation. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily inspections of the building housing this emissions unit to ensure that the direction of air at each open door and window is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices when the emissions unit is in operation.

Whenever the results of the inspection indicate the building is not under negative pressure, 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 date the investigation was conducted;

c. the name(s) of the personnel who conducted the investigation; and

d. 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 building back under negative pressure, 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:

e. a description of the corrective action;

f. the date corrective action was completed;

g. the date and time the deviation ended;

h. the total period of time during which there was a deviation;

i. 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.

(2) The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.

(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(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

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

(5) The permittee shall calculate and maintain monthly records of the PE/PM10/PM2.5 emissions exiting the baghouse associated with emissions units F001 and P901-P903, and P905 and the rolling 12-month emissions of PE/PM10/PM2.5 exiting the baghouse associated with emissions units F001, P901-P903, and P905.

e) Reporting Requirements

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

(2) The permittee shall submit quarterly deviation (excursion) reports for the following:

a. all periods of time during which the air flow indicating strips or other flow indicating device, at any open door or window, showed no air flow or air flow in a direction leaving the building and a summary of the corrective action taken;

b. 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; and

c. 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.

d. allexceedances of the rolling, 12-month emission limitation for PE/PM10/PM2.5 exiting the baghouse associated with emissions units F001,P901-P903, and P905.

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

f) Testing Requirements

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

a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

The emission testing shall be conducted to demonstrate compliance with the filterable PE/PM10/PM2.5 emission limitation of 0.009 gr/acf from the exhaust of the baghouse controlling this emissions unit (identified as Baghouse A in PTIO application A0047496 for permit P0114091).

The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60 Appendix A Methods 1-5.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

During the compliance demonstration the permittee shall verify the building housing this emissions unit is under negative pressure. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through open doors and windows. Negative pressure verifications shall be conducted at 15 minute intervals during the three one-hour compliance runs.

In order to establish the proper pressure drop across the baghouse, pressure drop readings shall be taken. At a minimum, the pressure drop readings shall be taken once every 15 minutes during each one hour stack testing run.

The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is

deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

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

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

b. Emission Limitation:

The total combined PE/PM10/PM2.5 (filterable + condensable) emissions exiting the baghouse associated with emissions units P901-P903, P905, and F001 shall not exceed 17.70 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations:

Filterable PE/PM10/PM2.5

((ExFr x gr/acfm)/7000gr/lbm) x 60 min/hr = lbs of filterable PE/PM10/PM2.5/hr

Where:

ExFr = Exhaust flow rate from the baghouse in actual cubic feet per minute

gr/acfm = grains per actual cubic feet of air per minute.

Calculation

((45,000 acfm x 0.009 gr/acfm)/7000 gr/lbm) x 60 min/hr = 3.47 lbs of filterable PE/PM10/PM2.5/hr

(3.47 lbs PE/PM10/PM2.5/hr x 8760 hr/yr)/2000 lbs/ton = 15.2 TPY.

Condensable PE/PM10/PM2.5

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.156 lb of Condensable PE/PM10/PM2.5/Ton of metal melted (based on stack testing at similar Gray Iron Foundries, See IDEM PSD Permit T033-21760-00042, Appendix B Page 6. Stack Testing Summaries).

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(0.156 lb of PE/PM10/PM2.5/ton x 32,000 TPY)/2000 lbs/ton = 2.5 TPY

Filterable + Condensable PE/PM10/PM2.5 = 15.2 + 2.5 = 17.7 TPY.

c. Emission Limitation:

The total combined VOC emissions from emissions units P902, P903, and 905 shall not exceed 0.119 lb/ton of metal poured and 1.9 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.119 lb of VOC/ton of metal poured, taken from CERP Gray Iron Foundry Study, “Melt Test CERP Test Source (Technikon #WBS 1241 EE, June 28, 2001).

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(0.119 lb of VOC/ton x 32,000 TPY)/2000 lbs/ton = 1.9 TPY.

d. Emission Limitation:

The total combined lead emissions exiting the baghouse associated with emissions units P902, P903, and P905 shall not exceed 8.93 x 10-4 TPY based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance may be demonstrated by the following emission calculations

(E.F. x Annual Production Rate)/ 2000 lbs/ton = TPY

Where:

E.F. = 0.00558 lb of lead/ton of metal poured, taken from CERP Gray Iron Foundry Study, Foundry Process Emission Factors; Baseline Emissions from Automotive Foundries, January 19, 1999, Table 5.16.

Annual Production Rate = Permit Production limitation of 32,000 TPY of metal poured based on a rolling 12-month summation

(((0.00558 lb of lead/ton x 32,000 TPY)/2000 lbs/ton)*(1-0.99) CE for baghouse = 8.93 x 10-4 TPY lead.

e. Emission Limitation:

Visible emissions from any stack shall not 20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.