Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

10/7/2016

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

John Burke
OSCO Inc.-Jackson Division
Jct. Rt. 23 South & Rt. 52 East / West
P.O. Box 1388
Portsmouth, OH 45662-1388

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0640010009
Permit Number: P0119905
Permit Type: Initial Installation
County: Jackson

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA)Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. 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**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
Ohio EPA-SEDO; Kentucky; West Virginia

Response to Comments

Facility ID:	0640010009
Facility Name:	OSCO Inc.-Jackson Division
Facility Description:	Gray Iron Foundry.
Facility Address:	Athens & Chillicothe P.O. Box 327 Jackson, OH 45640-0327 Jackson County
Permit:	P0119905, Permit-To-Install - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Times Journal on 06/30/2016. The comment period ended on 07/30/2016.	
Hearing date (if held)	None.
Hearing Public Notice Date (if different from draft public notice)	N/A.

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. U.S. EPA Comments received July 26, 2016:

a. Comment: The monitoring requirements for the 14.45 tpy particulate matter 10 and particulate matter 2.5 emission limit discussed above are daily visible emission checks. Visible emission checks are not sufficient to demonstration compliance with the particulate matter emission limits. The permit must include additional monitoring requirements that assures compliance with the particulate emission limits.

Response: Emissions units (EUs) F004, F005, F009, and P909 (formerly identified as F014) are all vented to the "Finishing Baghouse" and have a combined limit of 14.45 tons of PE/PM_{10}/$PM_{2.5}$ per year. Out of these units, this permit only addresses EUs F004 and F009. Emissions testing was conducted for PE, PM_{10}, and $PM_{2.5}$ from the "Finishing Baghouse" on October 22, 2015, pursuant to permit-to-install (PTI) P0114226 for EU P909 (F014). During this emissions test EUs F004, F005, F009 and P909 were all running. This emissions test demonstrated compliance with the short term grain loading limit established for the "Finishing Baghouse" which was used to calculate the 14.45 tons per year.

The need for this after-the-fact PTI was determined during the Title V (TV) permit-to-operate (PTO) renewal process. Additional testing for EUs F004, F005, F009, and P909 will be required in the renewal TV PTO in accordance with Ohio EPA's Engineering Guide (EG) #16.

b. Comment: The draft permit's description for emission units F004 and F009 and permit condition C.2.c)(1) say the baghouse serving these units is rated at 99.5% capture efficiency and 99% control efficiency. However, permit conditions C.3.b)(2)a. and C.3.c)(1) state a baghouse capture efficiency of 90%. Please clarify the rated capture efficiency of the baghouse and assure that this efficiency level is consistent with the source's ability to meet the permitted particulate emission limits for these units. The permit should also include testing to verify the stated capture and control efficiencies of the baghouse.

Response: The "Finishing Baghouse" controlling these units achieves 99.5% capture efficiency for EU F004 and 90% capture efficiency for EU F009. The capture efficiencies are different for these units because of the way they are ducted to the baghouse. The capture efficiency of the "Finishing Baghouse" as found in the description of F009 was identified as 99.5% in error and has been corrected to 90%.

Emissions testing for the short term grain loading limit of the Finishing Baghouse was conducted on October 22, 2015 and demonstrated compliance for PE, PM_{10}, and $PM_{2.5}$. Additional testing for this emissions limitation will be required in the renewal TV PTO in accordance with Ohio EPA's EG #16. In addition, these units are subject to Compliance Assurance Monitoring (CAM) requirements which will be incorporated in the renewal TV PTO.

EU P909, which is housed in the same building as EUs F004, F005, and F009, has an emission limitation of no visible emissions of fugitive dust (See Chapter 31 modification PTI P0119641 issued draft June 30, 2016). Compliance with the no VE limit for fugitive dust is monitored via daily checks for visible emissions from the building egress points.

c. Comment: Permit condition B.2.a)(1) establishes facility-wide hazardous air pollutant (HAP) limits of 9.9 tpy for individual HAP emissions and 24.9 tpy for total combined HAP emissions. The permit, however, does not include any monitoring or testing requirements for the HAP limits. The permit must include monitoring and/or testing requirements that assure compliance with these HAP emission limits.

Response: Monitoring requirements for the HAP emissions limitations are located in term B.4.a)(9). An equation explaining how the facility-wide HAP emissions should be calculated has been inserted in permit condition B.6.a)(1). Facility-wide HAP potential-to-emit calculations, taking into account the synthetic minor operational restrictions accounted for in the facility-wide terms and conditions of this permit, were submitted in application A0055700.

FINAL

Division of Air Pollution Control
Permit-to-Install
for
OSCO Inc.-Jackson Division

Facility ID:	0640010009
Permit Number:	P0119905
Permit Type:	Initial Installation
Issued:	10/7/2016
Effective:	10/7/2016

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
OSCO Inc.-Jackson Division

Table of Contents

Authorization 1
A. Standard Terms and Conditions 3
1. Federally Enforceable Standard Terms and Conditions 4
2. Severability Clause 4
3. General Requirements 4
4. Monitoring and Related Record Keeping and Reporting Requirements 5
5. Scheduled Maintenance/Malfunction Reporting 6
6. Compliance Requirements 6
7. Best Available Technology 7
8. Air Pollution Nuisance 8
9. Reporting Requirements 8
10. Applicability 8
11. Construction of New Sources(s) and Authorization to Install 8
12. Permit-To-Operate Application 9
13. Construction Compliance Certification 10
14. Public Disclosure 10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 10
16. Fees 10
17. Permit Transfers 10
18. Risk Management Plans 10
19. Title IV Provisions 10
B. Facility-Wide Terms and Conditions 11
C. Emissions Unit Terms and Conditions 16
1. F002, Sand Unloading and Storage 17
2. F004, Wheelabrator #2 21
3. F009, Stand Grinders 28

Authorization

Facility ID:	0640010009
Facility Description:	Gray Iron Foundry.
Application Number(s):	A0054792, A0054797, A0054802
Permit Number:	P0119905
Permit Description:	After the fact permit-to-install for emissions units F002, F004, and F009 with requested federally enforceable restrictions to avoid being a major source of hazardous air pollutants.
Permit Type:	Initial Installation
Permit Fee:	$1,200.00
Issue Date:	10/7/2016
Effective Date:	10/7/2016

This document constitutes issuance to:

OSCO Inc.-Jackson Division
Athens & Chillicothe
P.O. Box 327
Jackson, OH 45640-0327

of a Permit-to-Install 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:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0119905
Permit Description: After the fact permit-to-install for emissions units F002, F004, and F009 with requested federally enforceable restrictions to avoid being a major source of hazardous air pollutants.

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

Emissions Unit ID:	**F002**
Company Equipment ID:	Sand Unloading
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F004**
Company Equipment ID:	Wheelabrator #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F009**
Company Equipment ID:	Stand Grinders
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to theOhio EPA DAPC, Southeast District Officein accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s)not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted,no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d)must be <u>obtained before</u>operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services"facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be enteredupon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed.The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. Emissions Limitations:

   a) 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
(1)	OAC rule 3745-31-05(D) (Restriction to remain an area source of HAP emissions to avoid the requirements of 40 CFR Part 63, Subpart EEEEE.)	The facility-wide individual hazardous air pollutant (HAP) emissions and the facility-wide total combined HAP emissions shall not exceed 9.9 and 24.9 tons per year, respectively, based upon rolling, 12-month summations of the HAP emission rates. See b)(1) below.

   b) Additional Terms and Conditions

      (1) The following emissions units (EUs) comprise the HAP emitting EUs being restricted at this facility:

F004 – Wheelabrator #2

F005 – Wheelabrator #3

F007 – Pouring Box #1

F008 – Pouring Box #2

F009 – Stand Grinders

P909 – Wheelabrator #4

P009 – Shell Sand Coating System

P903 – Cupola Melting

P907 – Shell Molding Machines

P908 – 9ft Rotary Cooling Drum and Shakeout

All remaining HAP emissions from other sources at the facility have a total potential to emit of less than 0.1 ton per year combined. Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emissions limitations shall be based upon rolling, 12-month summations of the monthly usage/emissions figures. The permittee has sufficient records to begin calculating and tracking these rolling emissions limitations upon issuance of this permit.

3. Operational Restrictions

a) The following annual operational restrictions are in place in permit-to-install (PTI) P0119905, PTI P0119668 and PTI P0119641 to maintain facility-wide HAPs compliance:

(1) 60,840 tons of iron produced (EUs P903, P908, F004, F005, F009, P909);

(2) 30,420 tons of iron produced (EUs F007, F008);

(3) 4,680 hours of operation (P903, IAC and Wheelabrator Baghouse controlling EUs F007, F008, P908);

(4) 6,240 hours of operation ("Finishing Baghouse" controlling EUs F004, F005, F009, and P909);

(5) 42,588 tons of shell sand throughput (P907 and P009)

4. Monitoring and/or Recordkeeping Requirements

a) The permittee shall collect and record the following information each month:

(1) the throughput of iron produced (EUs P903, P908, F004, F005, F009, P909, F007, F008), in tons;

(2) the operating hours for the "Finishing Baghouse" (controlling EUs F004, F005, F009 and P909), the IAC and Wheelabrator Baghouse (controlling EUs F007, F008, and P908), and the cupola baghouse (controlling EU P903), in hours;

(3) the amount of shell sand processed (EUs P907 and P009), in tons;

(4) any occurrence when a controlled emissions unit operates without the use of its corresponding air pollution control device, including the date and duration of the occurrence;

(5) the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons;

(6) the rolling, 12-month summation of the throughput of iron produced (EUs P903, P908, F004, F005, F009, P909, F007, F008), in tons;

(7) the rolling, 12-month summation of the operating hours for the "Finishing Baghouse" (controlling EUs F004, F005, F009 and P909), the IAC and Wheelabrator Baghouse (controlling EUs F007, F008, and P908), and the cupola baghouse (controlling EU P903), in hours;

(8) the rolling, 12-month summation of the amount of shell sand processed (EUs P907 and P009), in tons;

(9) the rolling, 12-month summations of facility-wide individual HAP emissions and facility-wide total combined HAP emissions, in tons.

5. Reporting Requirements

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.

b) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the following:

(1) the rolling, 12-month summation of the throughput of iron produced (EUs P903, P908, F004, F005, F009, P909, F007, F008);

(2) the rolling, 12-month summation of the operating hours for the “Finishing Baghouse” (controlling EUs F004, F005, F009 and P909), the IAC and Wheelabrator Baghouse (controlling EUs F007, F008, and P908), and the cupola baghouse (controlling EU P903);

(3) the rolling, 12-month summation of the amount of shell sand processed (EUs P907 and P009);

(4) the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

6. Testing Requirements

a) Compliance with the Emissions Limitations and/or Control Requirements specified in section 2. of these terms and conditions shall be determined in accordance with the following methods:

(1) Emissions Limitation:

The facility-wide individual HAP emissions and the facility-wide total combined HAP emissions shall not exceed 9.9 and 24.9 tons per year, respectively, based upon rolling, 12-month summations of the HAP emission rates.

Applicable Compliance Method:

Compliance with the facility-wide individual HAP and the facility-wide total combined HAP emissions limitations shall be based upon a rolling, 12-month summation of the monthly usage/emissions figures as required in 4.a) above and the following calculation:

∑ Single HAP emissions from uncontrolled emissions units + ∑ Fugitive single HAP emissions from controlled emissions units + ∑ Stack single HAP emissions from controlled emissions units

Where:

For uncontrolled emissions units:

(Uncontrolled emissions factor (lb/ton))*(actual 12-month rolling throughput of the emissions unit in tons)

For fugitive emissions from controlled emissions units:

(Uncontrolled emissions factor (lb/ton))*(actual 12-month rolling throughput of the emissions unit in tons)*(1 – capture efficiency of the control device)

For stack emissions from controlled emissions units:

(Uncontrolled emissions factor (lb/ton))*(actual 12-month rolling throughput of the emissions unit in tons)*(capture efficiency of the control device)*(1 – control efficiency of the control device)

Where,

Uncontrolled emissions factor(s) (lb/ton) = the emissions factors for each single HAP as submitted in application A0055700

Capture efficiency of the control device(s) = as submitted in application A0055700

Control efficiency of the control device(s) = as submitted in application A0055700

7. Miscellaneous Requirements

a) None.

C. Emissions Unit Terms and Conditions

1. F002, Sand Unloading and Storage

Operations, Property and/or Equipment Description:

25 tons per hour sand/additive unloading and storage system (silo controlled by a bin vent) limited to 10,299 tons per year pursuant to metal throughput restriction of cupola

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the bin vent shall not exceed 0.030 gr/dscf or no visible PE from the stack, whichever is less stringent. PE shall not exceed 0.16 ton/year. Visible PE of fugitive dust shall not exceed 20% opacity as a 3-minute average. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a. – b. below.
b.	OAC rule 3745-17-07(A) OAC rule 3745-17-08(B)	The emissions limitation established pursuant to this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B)(1)	The emissions limitation established pursuant to this rule is equivalent to the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures for the above-identified sand unloading operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the partial enclosures of the above-mentioned sand unloading operations and a bin vent on the sand silo. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. For each sand unloading operation that is not adequately enclosed, additional control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the sand unloading and storage operations until further observation confirms that use of the control measure(s) is unnecessary.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible 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 written semiannual reports that identify:

a. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit,

b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit, and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions.

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

f) Testing Requirements

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

a. Emissions Limitation:

PE from the bin vent shall not exceed 0.030 gr/dscf.

Applicable Compliance Method:

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance

for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emissions Limitation:

No visible PE from the stack.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 22.

c. Emissions Limitation:

PE shall not exceed 0.16 ton/year.

Applicable Compliance Method:

Compliance with the annual emissions limitation may be demonstrated by the following calculation:

[(($EF_{SandUnloading}$) * (Maximum Annual Throughput)) + ((0.03 gr/dscf) * (8.33 dscf/min) * (60 min/hr) * (lb/7,000 gr) * (8,760 hours/year))] / 2,000 lbs/ton

Where,

$EF_{SandUnloading}$ = 0.03 lb/ton (RACM Table 2.7-1, pg 219, Emissions Factor 10 for Core and mold sand unloading and storage mechanical handling pneumatic handling)

Maximum annual throughput = 25 ton/hour

0.03 gr/dscf = outlet of bin vent as submitted in application A0054792

8.33 dscf/min = outlet gas flow rate of bin vent as submitted in application A0054792

d. Emissions Limitation:

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

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

(1) None.

2. F004, Wheelabrator #2

Operations, Property and/or Equipment Description:

13 TPH (34 cf) Wheelabrator #2 shot blaster with a maximum annual throughput restriction of 60,840 tons and 6,240 hours of operation; vented to a baghouse rated at 99.5% capture efficiency and 99% control efficiency

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)from the baghouse stack serving EUs F004, F005, F009 and P909 shall not exceed 0.020 grain per dry standard cubic foot of exhaust gases or no visible PE from the baghouse stack. The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a.-c. below. The requirements of this rule also includes compliance with the requirements of OAC rules 3745-31-05(D), 3745-31-05(F), 3745-17-07(B) and 3745-17-08.
b.	OAC rule 3745-31-05(D) (Synthetic Minor to avoid NSR major modification thresholds)	PE and emissions of PM_{10} and $PM_{2.5}$ from the stack serving EUs F004, F005, F009 and P909, combined, shall not exceed 14.45 tons per year as a rolling, 12-month summation.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Fugitive PE from EU F004 shall not exceed 0.71 ton, as a rolling, 12-month summation. Fugitive emissions of PM_{10} and $PM_{2.5}$ from EU F004 shall not exceed 0.08 ton, as a rolling, 12-month summation. See c)(1)-(2) below. See Section B.2.-6. for HAP restrictions.
c.	OAC rule 3745-17-07(B)(1)	Visible PE of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
d.	OAC rule 3745-17-08 OAC rule 3745-17-07(A)	The emissions limitations established pursuant to this rule are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

(1) Additional Terms and Conditions

a. The permittee shall employ best available control measures for the above-identified shot blasting operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the building enclosures of the above-mentioned shot blasting operations, and will ensure that the cartridge filter baghouse ("Finishing Baghouse" controlling emission units F004, F005, F009, and P909) captures 99.5% of the emissions from the shot blasting operations. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. For each shot blasting operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the shot blasting operations until further observation confirms that use of the control measure(s) is unnecessary.

c. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05(A)(3).

c) Operational Restrictions

(1) This emission unit shall be vented to a baghouse ("Finishing Baghouse") rated at 99.5% capture and 99% control efficiency and shall not exceed 0.020 grain per dry standard cubic foot of exhaust gases, when the emissions unit is in operation.

(2) The permittee has requested a federally enforceable restriction on the tons of metal processed (60,840 tons/rolling, 12-month period) and the annual operating hours (6,240 hours/rolling, 12-month period) for the "Finishing Baghouse" (controlling EUs F004, F005, F009, and P909) for purposes of limiting the potential to emit of PE/PM_{10}/$PM_{2.5}$ in order to avoid NSR major modification thresholds. See Section B.3.a)(1) and Section B.3.a)(4) for these restrictions.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records which list the following information:

a. the rolling 12-month summation of PE, PM_{10}, and $PM_{2.5}$ emissions.; and

b. See Section B.4.a)(1), B.4.a)(2), B.4.a)(7), and B.4.a)(8) above.

This emissions unit has been in operation for more than 12-months and, as such, the permittee has existing records to generate the rolling, 12-month summations of PE and emissions of PM_{10}, and $PM_{2.5}$, upon issuance of this permit.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible 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 which identify the following;

a. all exceedances of the rolling, 12-month limitation on PE, PM_{10}, and $PM_{2.5}$ during the reporting period.; and

b. See Section B.5.b)(1)-(2) above.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(3) The permittee shall submit written semiannual reports that identify:

a. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit,

b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit, and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions.

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

f) Testing Requirements

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

a. Emissions Limitation:

PE and emissions of PM_{10}, and $PM_{2.5}$ from the baghouse stack serving EUs F004, F005, F009 and P909 shall not exceed 0.020 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emissions Limitation:

No visible PE from the baghouse stack.

Applicable Compliance Method:

If required, visible PE from the stack shall be determined according to USEPA Method 22.

c. Emissions Limitation:

Fugitive PE from EU F004 shall not exceed 0.71 ton per year, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

(Uncontrolled hourly emissions factor)*(actual rolling, 12-month summation of the tons of metal processed in P909)*(1 - capture efficiency of baghouse)*(1 – control efficiency building)*(1 ton/ 2,000 lbs)

Where,

Uncontrolled hourly emissions factor = 15.50 lbs PE/ton of metal processed - Bernard S. Gutow Article, Modern Castings, January 1972

Actual rolling, 12-month summation of the tons of metal processed in P909 = as recorded in section B.4.a)(7)

Capture efficiency of baghouse = 99.5% as submitted in the permittee's application

Control efficiency of building = 70% as submitted in the permittee's application

The rolling, 12-month emissions limitation was established by the following calculation:

(15.50 lbs/ton) * (60,840 tons/rolling, 12-month summation) * (1 - 99.5% capture efficiency of baghouse) * (1 - 70% control efficiency of building) * (1 ton/2,000 lbs) = 0.71 ton/rolling, 12-month period

d. Emissions Limitation:

Fugitive emissions of PM_{10} and $PM_{2.5}$ from EU F004 shall not exceed 0.08 ton per year, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

(Uncontrolled hourly emissions factor)*(actual rolling, 12-month summation of the tons of metal processed in F004)*(1 - capture efficiency of baghouse)*(1 – control efficiency of building)*(1 ton/ 2,000 lbs)

Where,

Uncontrolled hourly emissions factor = 1.7 lbs PM_{10}/$PM_{2.5}$ /ton of metal processed as submitted in the permittee's application

Actual rolling, 12-month summation of the tons of metal processed in F004 = as recorded in section B.4.a)(7)

Capture efficiency of baghouse = 99.5% as submitted in the permittee's application

Control efficiency of building = 70% as submitted in the permittee's application

The rolling, 12-month emissions limitation was established by the following calculation:

(1.7 lbs/ton) * (60,840 tons/rolling, 12-month summation) * (1 - 99.5% capture efficiency) * (1 - 70% control efficiency) * (1 ton/2,000 lbs) = 0.08 ton/rolling, 12-month period

e. Emissions Limitation:

PE and emissions of PM_{10} and $PM_{2.5}$ from the stack serving EUs F004, F005, F009 and P909, combined, shall not exceed 14.45 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the most recent stack test hourly emission rate by the rolling, 12-month total hours of operation of the emissions unit (as recorded in Section B.4.a)(8)), and then dividing by 2,000 lbs/ton.

The annual emissions limitation was established by the following calculation:

0.020 gr/dscf * 27,000 cfm * 60 min/hr * (1 lb/7,000 gr) = 4.63 lbs/hr

4.63 lbs/hr * 6,240 hours/yr = 28,891.2 lbs/yr / 2,000 lbs/ton = 14.45 TPY

f. Emissions Limitation:

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

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

(1) None.

3. F009, Stand Grinders

Operations, Property and/or Equipment Description:

13 tons/hour stand grinders with a maximum throughput of 60,840 tons per year and controlled by a baghouse with 90% capture efficiency and 99% control efficiency

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)from the baghouse stack serving EUs F004, F005, F009 and P909 shall not exceed 0.020 grain per dry standard cubic foot of exhaust gases or no visible PE from the baghouse stack. The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a.-b. below. The requirements of this rule also includes compliance with the requirements of OAC rules 3745-31-05(D), 3745-31-05(F), 3745-17-07(B) and 3745-17-08.
b.	OAC rule 3745-31-05(D) (Synthetic Minor to avoid NSR major modification thresholds)	PE and emissions of PM_{10} and $PM_{2.5}$ from the stack serving EUs F004, F005, F009 and P909, combined, shall not exceed 14.45 tons per year as a rolling, 12-month summation. Fugitive emissions of PM_{10} and $PM_{2.5}$

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		from EU F009 shall not exceed 0.0041 ton per year, as a rolling, 12-month summation. See c)(1)-(2) below. See Section B.2.-6. above for HAP restrictions.
c.	OAC rule 3745-17-07(B)(1)	Visible PE of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
d.	OAC rule 3745-17-08 OAC rule 3745-17-07(A)	The emissions limitations established pursuant to this rule are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures for the above-identified grinding operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the building enclosures of the above-mentioned grinding operations, and will ensure that the cartridge filter baghouse ("Finishing Baghouse" controlling emission units F004, F005, F009, and P909) captures 90% of the emissions from the grinding operations. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. For each grinding operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the grinding operations until further observation confirms that use of the control measure(s) is unnecessary.

c. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05(A)(3).

c) Operational Restrictions

(1) This emission unit shall be vented to a baghouse ("Finishing Baghouse") rated at 90% capture and 99% control efficiency and shall not exceed 0.020 grain per dry standard cubic foot of exhaust gases, when the emissions unit is in operation.

(2) The permittee has requested a federally enforceable restriction on the tons of metal processed and the annual operating hours for the "Finishing Baghouse" (controlling EUs F004, F005, F009, and P909) for purposes of limiting the potential to emit of PE/PM_{10}/$PM_{2.5}$ in order to avoid NSR major modification thresholds. See Section B.3.a)(1) and Section B.3.a)(4) for these restrictions.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, calibrate (if applicable), operate, and maintain equipment to monitor the hours of operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

(2) The permittee shall maintain monthly records which list the following information:

a. the rolling 12-month summation of PE, PM_{10}, and $PM_{2.5}$ emissions; and

b. See Section B.4.a)(1), B.4.a)(2), B.4.a)(7), and B.4.a)(8) above.

This emissions unit has been in operation for more than 12-months and, as such, the permittee has existing records to generate the rolling, 12-month summations of PE and emissions of PM_{10}, and $PM_{2.5}$, upon issuance of this permit.

(3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

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

(4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible 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 which identify the following;

a. all exceedances of the rolling, 12-month limitation on PE, PM_{10}, and $PM_{2.5}$ during the reporting period; and

b. See Section B.5.b)(1)-(2) above.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(3) The permittee shall submit written semiannual reports that identify:

a. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit,

b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit, and

c. any corrective actions taken to minimize or eliminate the visible particulate emissions.

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

f) Testing Requirements

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

a. Emissions Limitation:

PE and emissions of PM_{10}, and $PM_{2.5}$ from the stack serving EUs F004, F005, F009 and P909 shall not exceed 0.020 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emission Limitation:

No visible PE from the baghouse stack.

Applicable Compliance Method:

If required, visible PE from the stack shall be determined according to USEPA Method 22.

c. Emissions Limitation:

Fugitive PE from EU F009 shall not exceed 1.46 tons per year, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

(Uncontrolled hourly emissions factor)*(actual rolling, 12-month summation of the tons of metal processed in F009)*(1 - capture efficiency of baghouse)*(1 – control efficiency building)*(1 ton/ 2,000 lbs)

Where,

Uncontrolled hourly emissions factor = 1.60 lbs PE per ton of metal throughput – U.S. EPA document EPA-450/4-89-022, Nov. 1989

Actual rolling, 12-month summation of the tons of metal processed in F009 = as recorded in section B.4.a)(7)

Capture efficiency of baghouse = 90% as submitted in the permittee's application

Control efficiency of building = 70% as submitted in the permittee's application

The rolling, 12-month emissions limitation was established by the following calculation:

(1.6 lbs/ton) * (60,840 tons/rolling, 12-month summation) * (1 - 90% capture efficiency of baghouse) * (1 - 70% control efficiency of building) * (1 ton/2,000 lbs) = 1.46 tons/rolling, 12-month period

d. Emissions Limitation:

Fugitive emissions of PM_{10} and $PM_{2.5}$ from EU F009 shall not exceed 0.0041 ton per year, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

(Uncontrolled hourly emissions factor)*(actual rolling, 12-month summation of the tons of metal processed in F009)*(1 - capture efficiency of baghouse)*(1 – control efficiency of building)*(1 ton/ 2,000 lbs)

Where,

Uncontrolled hourly emissions factor = 0.0045 lb PM_{10}/$PM_{2.5}$ per ton of metal throughput - FIRE 6.25 (SCC 3-04-003-60)

Actual rolling, 12-month summation of the tons of metal processed in F009 = as recorded in section B.4.a)(7)

Capture efficiency of baghouse = 90% as submitted in the permittee's application

Control efficiency of building = 70% as submitted in the permittee's application

The rolling, 12-month emissions limitation was established by the following calculation:

(0.0045 lbs/ton) * (60,840 tons/rolling, 12-month summation) * (1 - 90% capture efficiency) * (1 - 70% control efficiency) * (1 ton/2,000 lbs) = 0.0041 ton/rolling, 12-month period

e. Emissions Limitation:

PE and emissions of PM_{10} and $PM_{2.5}$ from the stack serving EUs F004, F005, F009 and P909, combined, shall not exceed 14.45 tons per year, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the most recent stack test hourly emission rate by the rolling, 12-month total hours of operation of the emissions unit, and then dividing by 2,000 lbs/ton.

The annual emission limitation was established by the following calculation:

0.020 gr/dscf * 27,000 cfm * 60 min/hr * (1 lb/7,000 gr) = 4.63 lbs/hr

4.63 lbs/hr * 6,240 hours/yr = 28,891.2 lbs/yr / 2,000 lbs/ton = 14.45 TPY

f. Emissions Limitation:

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

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

(1) None.