



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/15/2010

Certified Mail

John Nicora
Elyria Foundry
120 Filbert Street
Elyria, OH 44036

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0247040014
Permit Number: P0105731
Permit Type: OAC Chapter 3745-31 Modification
County: Lorain

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

Dear Permit Holder:

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

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

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

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. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northeast District Office. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA
Ohio EPA-NEDO; Canada



Response to Comments

Response to comments for: Permit-To-Install

| | |
|---|---|
| Facility ID: | 0247040014 |
| Facility Name: | Elyria Foundry |
| Facility Description: | Iron Foundry |
| Facility Address: | 120 Filbert Street Elyria, OH 44036 Lorain County |
| Permit #: | P0105731, OAC Chapter 3745-31 Modification |
| A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Chronicle Telegram on 10/02/2010. The comment period ended on 11/01/2010. | |
| Hearing date (if held) | |
| Hearing Public Notice Date (if different from draft public notice) | |

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. Topic: **Synthetic Minor to Avoid Major NSR**

- a. Comment: **Should be Yes**
- b. Response: **Yes, it should be yes, corrected**

2. Topic: **F010 – Operations, Property and/or Equipment Description**

- a. Comment: **Requested clarification in description**
- b. Response: **Change Made**

3. Topic: **20% opacity versus 10% opacity**

- a. Comment: throughout the permit facility objects to using 10% opacity, wants 20 % opacity.
- b. Response: Changes not made, permit remains at 10% opacity

4. Topic: Description in permit about collection efficiency
 - a. Comment: Believes permit can be misinterpreted to believe entire cooling area should be under hood
 - b. Response: Permit not changed, language is sufficient
5. Topic: Under testing requirements throughout permit H=baghouse operating hours
 - a. Comment: Should read "H = emissions units operating hours"
 - b. Response: Comment is correct, permit corrected to "H=emissions unit operating hours"
6. Topic: Emission Limitation
 - a. Comment: Rounding error throughout permit 3.84 tons per year should be 3.83 tons per year
 - b. Response: Comment is correct, permit corrected
7. Topic: throughout permit under monitoring and recordkeeping term #2
 - a. Comment: daily should be changed to monthly
 - b. Response: Correct, permit changed



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Elyria Foundry**

Facility ID: 0247040014
Permit Number: P0105731
Permit Type: OAC Chapter 3745-31 Modification
Issued: 11/15/2010
Effective: 11/15/2010



Division of Air Pollution Control
Permit-to-Install
for
Elyria Foundry

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Authorization

Facility ID: 0247040014

Facility Description: Iron Foundry

Application Number(s): A0038517, A0038604, A0039769

Permit Number: P0105731

Permit Description: Elyria Foundry is requesting a production increase for the British MoldMaking Machine (BMM) operations. An emissions increase is not being requested. The facility plans on not exceeding their grain loading per dry standard cubic foot or their ton per year limitations, which are listed in their permit to install (PTI) 02-8154, which was issued final on 18 May 1994 and modified on 11 May 1995. Two other permit applications are linked to this (A0038517 and A0039769). A0038517 was a request to increase only F010. EF then submitted this application which was an increase in both F010 and F011. A0039769 is a corrected application, after a review, it was decided to split F010 and F011 into a total of four emissions units. F010, F011, P904 and P905.

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$4,500.00

Issue Date: 11/15/2010

Effective Date: 11/15/2010

This document constitutes issuance to:

Elyria Foundry
120 Filbert Street
Elyria, OH 44036

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

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 43087
(330)425-9171

The above named entity is hereby granted 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



Chris Korleski
Director



Authorization (continued)

Permit Number: P0105731
Permit Description: Elyria Foundry is requesting a production increase for the British MoldMaking Machine (BMM) operations. An emissions increase is not being requested. The facility plans on not exceeding their grain loading per dry standard cubic foot or their ton per year limitations, which are listed in their permit to install (PTI) 02-8154, which was issued final on 18 May 1994 and modified on 11 May 1995. Two other permit applications are linked to this (A0038517 and A0039769). A0038517 was a request to increase only F010. EF then submitted this application which was an increase in both F010 and F011. A0039769 is a corrected application, after a review, it was decided to split F010 and F011 into a total of four emissions units. F010, F011, P904 and P905.

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

- Emissions Unit ID:** **F010**
Company Equipment ID: BMM Pouring and Cooling
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** **F011**
Company Equipment ID: BMM Punchout and Shakeout
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** **P904**
Company Equipment ID: BMM Mold Making Operations
Superseded Permit Number:
General Permit Category and Type: Not Applicable
- Emissions Unit ID:** **P905**
Company Equipment ID: BMM Sand Reclaim Operations
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) The permittee must comply with all terms and conditions of this permit. 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, Northeast District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, 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, Northeast 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, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northeast 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 the Ohio EPA DAPC, Northeast District Office in 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.
- c) 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.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast 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, Northeast 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, Northeast 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 (i.e., postmarked) 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).

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 party 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 Ohio EPA's "Air Services" 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).
- 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.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

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

- a) Completion of initial installation date shall be entered upon 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 (i.e., postmarked), 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.

C. Emissions Unit Terms and Conditions



1. F010, BMM Pouring and Cooling

Operations, Property and/or Equipment Description:

BMM Shop Casting and Cooling (PWR - 14 tons per hour) controlled by a 30,000 acfm baghouse (Baghouse Number 11). This baghouse also controls the majority of P904, and parts (conveyor from sand muller to surge hopper, and surge hopper bin) of P905.

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|--|---|
| a. | OAC rule 3745-31-05(A)(3), as effective 11/30/2001 | <p>Particulate matter/particulate matter less than 10 microns in diameter (PM/PM₁₀) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 0.77 pound per hour and 1.85 tons per year.*</p> <p>*Emissions are a summation of all units that are ducted to the baghouse.</p> <p>Fugitive particulate emissions shall not exceed 4.41 tons per year.</p> <p>Fugitive PM₁₀ emissions shall not exceed 2.16 tons per year.</p> <p>Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.</p> <p>Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.</p> <p>See b)(2)a and b)(2)b.</p> |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective on 12/01/2006 | See b)(2)c. |
| c. | OAC rule 3745-17-07(B) | See b)(2)d. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| d. | OAC rule 3745-17-08(B) | See b)(2)e. |
| e. | OAC rule 3745-17-07(A) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| f. | OAC rule 3745-17-11 | The emission limitation required by this applicable 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 collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants 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 3745-31-05, then these emission limits/control measures no longer apply.
- c. This rule paragraph 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 emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.
- d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- e. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) The amount of iron processed through this emissions unit shall not exceed 14 tons per hour and 21,000 tons per year.

- (2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. 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 summation of the hours of operation upon issuance of this permit.

d) Monitoring and/or Recordkeeping Requirements

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

- (2) The permittee shall keep monthly records of:
 - a. the amount of iron, in tons, processed through this emissions unit;
 - b. the operating hours for each day;
 - c. the amount of iron, in tons, processed through this emissions unit per hour (a./b.); and
 - d. the rolling, 12-month summation of the operating hours.
- (3) The permittee shall keep annual records of the amount of iron, in tons, processed through this emissions unit.

e) Reporting Requirements

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

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

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

(2) The permittee shall submit annual deviation (excursion) reports that identify:

- a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;
- b. all exceedances of the 14 tons per hour of iron production rate; and
- c. all exceedance of the 21,000 tons per year iron production rate.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 0.77 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

b. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 1.85 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$TPY = (ET \times \text{flow} \times 60 \times H) / (7000 \times 2000)$$

where:

TPY = Emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 4.41 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE))/2000$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 4.2 lbs PM/ton of iron from AP-42, Section 12.10 Gray Iron Foundries, version 1/95, Table 12.10-7, Pouring/Cooling (uncontrolled);

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 90% (0.9); and

2000 = conversion factor, pounds per ton.

d. Emission Limitation:

Fugitive PM₁₀ emissions shall not exceed 2.16 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE))/2000$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 2.06 lbs PM₁₀/ton of iron from FIREDATABASE, Grey Iron Foundries, Casting Cooling;

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 90% (0.9); and

2000 = conversion factor, pounds per ton.

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

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

f. Emission Limitation:

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

Applicable Compliance Method:

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

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

- a. The emission testing shall be conducted within 180 days after the issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
- c. 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 through 5; and

40 CFR Part 51, Appendix M, Method 201.

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA Northeast District Office 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.
 - g. 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.
- g) Miscellaneous Requirements
- (1) None.



2. F011, BMM Punchout and Shakeout

Operations, Property and/or Equipment Description:

BMM Punchout and Shakeout, includes 6 sand conveyors, and 1 elevator bucket all controlled by a 62,000 cfm baghouse (Baghouse #23, Northwest). The baghouse also controls parts of P905 and other areas of the BMM.

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|--|
| a. | OAC rule 3745-31-05(A)(3), as effective 11/30/2001 | <p>Particulate matter/particulate matter less than 10 microns in diameter (PM/PM₁₀) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 1.59 pounds per hour and 3.83 tons per year.*</p> <p>*Emissions are a summation of all units that are ducted to the baghouse.</p> <p>Fugitive particulate emissions shall not exceed 1.68 tons per year.</p> <p>Fugitive PM₁₀ emissions shall not exceed 1.18 tons per year.</p> <p>Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.</p> <p>Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.</p> <p>See b)(2)a and b)(2)b.</p> |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006 | See b)(2)c. |
| c. | OAC rule 3745-17-07(B) | See b)(2)d. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| d. | OAC rule 3745-17-08(B) | See b)(2)e. |
| e. | OAC rule 3745-17-07(A) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| f. | OAC rule 3745-17-11 | The emission limitation required by this applicable 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 collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants 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 3745-31-05, then these emission limits/control measures no longer apply.
- c. This rule paragraph 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 emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.
- d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- e. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) The amount of iron processed through this emissions unit shall not exceed 14 tons per hour and 21,000 tons per year.

- (2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. 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 summation of the hours of operation upon issuance of this permit.

d) **Monitoring and/or Recordkeeping Requirements**

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

- (2) The permittee shall keep monthly records of:
- a. the amount of iron, in tons, processed through this emissions unit;
 - b. the operating hours for each day;
 - c. the amount of iron, in tons, processed through this emissions unit per hour (a./b.); and
 - d. the rolling, 12-month summation of the operating hours.
- (3) The permittee shall keep annual records of the amount of iron, in tons, processed through this emissions unit.

e) Reporting Requirements

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

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

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

(2) The permittee shall submit annual deviation (excursion) reports that identify:

- a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;
- b. all exceedances of the 14 tons per hour of iron production rate; and
- c. all exceedance of the 21,000 tons per year iron production rate.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 1.59 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

b. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 3.83 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$TPY = (ET \times \text{flow} \times 60 \times H) / (7000 \times 2000)$$

where:

TPY = Emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 1.68 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE))/2000$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 3.2 lbs PM/ton of iron from AP-42, Section 12.10 Gray Iron Foundries, version 1/95, Table 12.10-7, Shakeout (uncontrolled);

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 95% (0.95); and

2000 = conversion factor, pounds per ton.

d. Emission Limitation:

Fugitive PM₁₀ emissions shall not exceed 1.18 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE))/2000$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 2.24 lbs PM₁₀/ton of iron from FIREDATABASE, Grey Iron Foundries, Casting Shakeout;

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 95% (0.95); and

2000 = conversion factor, pounds per ton.

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

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

f. Emission Limitation:

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

Applicable Compliance Method:

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

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

- a. The emission testing shall be conducted within 180 days after the issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
- c. 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 through 5; and

40 CFR Part 51, Appendix M, Method 201.

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



- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA Northeast District Office 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.
 - g. 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.
- g) Miscellaneous Requirements
- (1) None.



3. P904, P904

Operations, Property and/or Equipment Description:

BMM Mold Making controlled by a 30,000 acfm baghouse. (The baghouse also controls other parts of the BMM operation. No organic compound binders are used.

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|--|---|
| a. | OAC rule 3745-31-05(A)(3), as effective 11/30/2001 | <p>Particulate matter/particulate matter less than 10 microns in diameter (PM/PM₁₀) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 0.77 pound per hour and 1.85 tons per year.*</p> <p>*Emissions are a summation of all units that are ducted to the baghouse.</p> <p>Fugitive particulate emissions shall not exceed 0.04 ton per year.</p> <p>Fugitive PM₁₀ emissions shall not exceed 0.02 ton per year.</p> <p>Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.</p> <p>Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average.</p> <p>See b)(2)a and b)(2)b.</p> |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective on 12/01/2006 | See b)(2)c. |
| c. | OAC rule 3745-17-07(B) | See b)(2)d. |
| d. | OAC rule 3745-17-08(B) | See b)(2)e. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| e. | OAC rule 3745-17-07(A) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| f. | OAC rule 3745-17-11 | The emission limitation required by this applicable 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 collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants 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 3745-31-05, then these emission limits/control measures no longer apply.
- c. This rule paragraph 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 emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.
- d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- e. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) The amount of iron processed through this emissions unit shall not exceed 14 tons per hour and 21,000 tons per year.

- (2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. 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 summation of the hours of operation upon issuance of this permit.

d) **Monitoring and/or Recordkeeping Requirements**

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

- (2) The permittee shall keep monthly records of:
 - a. the amount of iron, in tons, processed through this emissions unit;
 - b. the operating hours for each day;
 - c. the amount of iron, in tons, processed through this emissions unit per hour (a./b.); and
 - d. the rolling, 12-month summation of the operating hours.
- (3) The permittee shall keep annual records of the amount of iron processed through this emissions unit.

e) Reporting Requirements

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

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

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

(2) The permittee shall submit annual deviation (excursion) reports that identify:

- a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;
- b. all exceedances of the 14 tons per hour of iron usage rate; and
- c. all exceedance of the 21,000 tons per year iron usage rate.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 0.77 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

b. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 1.85 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$TPY = (ET \times \text{flow} \times 60 \times H) / (7000 \times 2000)$$

where:

TPY = Emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 0.04 ton per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE)) / (2000)$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 0.04 lbs PM/ton of casting from RACM page 2-219 for Mold Making;

T = iron throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 90% (0.9); and

2000 = conversion factor, pounds per ton.

d. Emission Limitation:

Fugitive PM₁₀ emissions shall not exceed 0.02 ton per year.

Applicable Compliance Method:

Fugitive PM₁₀ emissions are assumed to be half the emissions of fugitive PM emissions.

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

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

f. Emission Limitation:

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

Applicable Compliance Method:

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

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

- a. The emission testing shall be conducted within 180 days after the issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
- c. 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 through 5; and

40 CFR Part 51, Appendix M, Method 201.

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast District Office 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.

- g. 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

g) Miscellaneous Requirements

- (1) None.

4. P905, P905

Operations, Property and/or Equipment Description:

BMM Sand Reclaim Operations includes North and South 60-ton sand tanks, controlled by a 62,000 cfm baghouse (Baghouse #24, Northeast). The baghouse also controls parts of other BMM operating lines.

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|--|---|
| a. | OAC rule 3745-31-05(A)(3), as effective 11/30/2001 | Particulate matter/particulate matter less than 10 microns in diameter (PM/PM ₁₀) emissions from the baghouse stack shall not exceed 0.003 grain per dscf, 1.60 pounds per hour and 3.83 tons per year.* *Emissions are a summation of all units that are ducted to the baghouse. Fugitive particulate emissions shall not exceed 6.12 tons per year. Fugitive PM ₁₀ emissions shall not exceed 0.92 ton per year. Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time. Visible fugitive particulate emissions shall not exceed 10% opacity as a 3-minute average. See b)(2)a and b)(2)b. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective on 12/01/2006 | See b)(2)c. |
| c. | OAC rule 3745-17-07(B) | See b)(2)d. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| d. | OAC rule 3745-17-08(B) | See b)(2)e. |
| e. | OAC rule 3745-17-07(A) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| f. | OAC rule 3745-17-11 | The emission limitation required by this applicable 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 collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants 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 3745-31-05, then these emission limits/control measures no longer apply.
- c. This rule paragraph 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 emissions of particulate matter less than 10 microns in diameter and particulate matter from this air contaminant source since the calculated annual emission rates are each less than 10 tons per year.
- d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- e. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

- (1) The amount of sand processed through this emissions unit shall not exceed 69 tons per hour and 170,000 tons per year.

- (2) The maximum annual operating hours for this emissions unit shall not exceed 4800, based upon a rolling, 12-month summation of the operating hours. 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 summation of the hours of operation upon issuance of this permit.

d) **Monitoring and/or Recordkeeping Requirements**

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

- (2) The permittee shall keep monthly records of:
 - a. the amount of sand, in tons, processed through this emissions unit;
 - b. the operating hours for each day;
 - c. the amount of sand, in tons, processed through this emissions unit per hour (a./b.); and
 - d. the rolling, 12-month summation of the operating hours.
- (3) The permittee shall keep annual records of the amount of sand processed through this emissions unit.

e) Reporting Requirements

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

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

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

(2) The permittee shall submit annual deviation (excursion) reports that identify:

- a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;
- b. all exceedances of the 69 tons per hour of sand usage rate; and
- c. all exceedance of the 170,000 tons per year sand usage rate.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 0.003 grain per dscf and 1.60 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

b. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack shall not exceed 3.83 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$TPY = (ET \times \text{flow} \times 60 \times H) / (7000 \times 2000)$$

where:

TPY = Emissions of PM, tons per year;

ET = results of emissions testing, grains/cf;

flow = flow rate from baghouse, cfm;

60 = conversion factor, minutes per hour;

H = emissions unit operating hours;

7000 = conversion factor, grains per pound; and

2000 = conversion factor, pounds per ton.

c. Emission Limitation:

Fugitive particulate emissions shall not exceed 6.12 tons per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE))/2000$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 3.6 lbs PM/ton of sand from AP-42, Section 12.10, Gray Iron Foundries, Table 12.10-7, Sand Handling (uncontrolled);

T = sand throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 98% (0.98); and

2000 = conversion factor, pounds per ton.

d. Emission Limitation:

Fugitive PM₁₀ emissions shall not exceed 0.92 ton per year.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (EF \times T \times (1 - CE))/2000$$

where:

E = emissions of fugitive particulate emissions, TPY;

EF = emission factor, 0.54 lbs PM₁₀/ton of sand from FIREDATABASE, Sand Grinding/Handling (uncontrolled);

T = sand throughput, tons per year;

CE = capture efficiency of baghouse, assumed to be 98% (0.98); and

2000 = conversion factor, pounds per ton.

e. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

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

f. Emission Limitation:

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

Applicable Compliance Method:

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

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

- a. The emission testing shall be conducted within 180 days after the issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates.
- c. 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 through 5; and

40 CFR Part 51, Appendix M, Method 201.

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA Northeast District Office 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.
 - g. 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.
- g) Miscellaneous Requirements
- (1) None.