



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

2/29/2016

Certified Mail

Heather Rainwater
McWane Ductile - Ohio
P. O. Box 6001
2266 South Sixth Street
Coshocton, OH 43812-6001

Facility ID: 0616010006
Permit Number: P0089138
County: Coshocton

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio Environmental Protection Agency (EPA) Preliminary Proposed Title V permit that was issued in draft form on 12/17/2015. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically 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. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments. If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

A handwritten signature in black ink that reads "Michael E. Hopkins".

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

Cc: Ohio EPA DAPC, Southeast District Office



Response to Comments

Facility ID:	0616010006
Facility Name:	McWane Ductile - Ohio
Facility Description:	Ductile Iron Pipe and Utility Poles
Facility Address:	2266 South Sixth Street P. O. Box 6001 Coshocton, OH 43812-6001 Coshocton County
Permit:	P0089138, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Coshocton Tribune on 12/26/2015. The comment period ended on 01/25/2016.	
Hearing date (if held)	None.
Hearing Public Notice Date (if different from draft public notice)	None.

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.

Facility Comments for Facility ID: 0616010006 Permit Number: P0089138 Title V Renewal Permit

Comment: 1. Statement of Basis, Major Source: McWane Ductile – Ohio determined the facility’s PTEs for GHGs on mass basis as well as on CO2e basis exceed the appropriate thresholds.

Response: Ohio EPA has made this change.

Comment: 2. Table of Contents, Section C. #5: Change to “Outdoor Coupon Cutting”

Response: Ohio EPA has made this change.

Comment: 3. Table of Contents, Section C. #6: Change to “Specialty Core Machine #7”

Response: Ohio EPA has made this change.

Comment: 4. Section B.3.b)(1): Change to “Pipe Paint Operations – Small Line (K006)”

Response: Ohio EPA has made this change.

Comment: 5. Section B.6.c) #1 and #2: Change #1 and #2 to #7 and #8



Response to Comments
McWane Ductile - Ohio
Permit Number: P0089138
Facility ID: 0616010006

Response: Ohio EPA has corrected the numbering.

Comment: 6. Section B.6.c) #2: Change F031 to "Shell core machine No. 5 – pipe"

Response: Ohio EPA has made this change.

Comment: 7. Section C.4.e): F019 Work Practice Plan was submitted and approved as Exhibit B to Permit P0118171 issued 8/4/2015.

Response: Ohio EPA has added this information (see permit term C.4.d)(1)d.) and has removed the requirement to submit a Work Practice Plan within 30 days of permit issuance (permit term C.4.e)(1)).

Additional Changes made by Ohio EPA Facility ID: 0616010006 Permit Number: P0089138 Title V Renewal Permit

In addition to the changes detailed above, Ohio EPA has also incorporated the requirements of 40 CFR Part 63, Subpart ZZZZZ for emissions units P901, F065, F066, and P034, and incorporated the Work Practice Plan for emissions unit F019, as included in PTI P0118171.



PRELIMINARY PROPOSED

Division of Air Pollution Control Title V Permit for McWane Ductile - Ohio

Facility ID:	0616010006
Permit Number:	P0089138
Permit Type:	Renewal
Issued:	2/29/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
McWane Ductile - Ohio

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Preliminary Proposed Title V Permit

McWane Ductile - Ohio

Permit Number: P0089138

Facility ID: 0616010006

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0616010006
Facility Description: Ductile Iron Pipe and Utility Poles
Application Number(s): A0020379, A0020380, A0020381, A0038198, A0042818, A0047807, A0049356, A0052159, A0054132, A0054732, A0054876
Permit Number: P0089138
Permit Description: Renewal Title V permit to operate for McWane Ductile-Ohio.
Permit Type: Renewal
Issue Date: 2/29/2016
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0089137

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

McWane Ductile - Ohio
2266 South Sixth Street
P. O. Box 6001
Coshocton, OH 43812-6001

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 Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Southeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Preliminary Proposed Title V Permit
McWane Ductile - Ohio
Permit Number: P0089138
Facility ID: 0616010006
Effective Date: To be entered upon final issuance

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- 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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))



c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the



probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Southeast District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Southeast District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally



enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Southeast District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))



4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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 except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. 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, reopening 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.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))



10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))



13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
 - (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.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Southeast District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:
 - (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms



and conditions with which there has been continuous compliance throughout the year are not separately identified.

- b. The permittee's current compliance status.
- c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
- d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
- e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Southeast District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Southeast District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))



16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)



19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible 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 Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:



- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Southeast District Office in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Southeast District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



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30. Submitting Documents Required by this Permit

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 Ohio EPA DAPC, Southeast District Office, 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 required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.



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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. Facility-Wide Emission Limitations

a) McWane Poles (0616015010) and McWane Ductile - Ohio (0616010006) have been determined to be one facility for permitting purposes under 40 CFR Part 52.21, OAC Chapter 3745-31, and OAC Chapter 3745-77.

The facility-wide (McWane Poles (0616015010) and McWane Ductile - Ohio (0616010006) combined) individual HAP and the facility-wide total combined HAP emissions shall not exceed 9.9 and 24.9 tons per year, respectively, based upon a rolling, 12-month summation of the emission rates from all HAP emitting emissions units at the facility.

(Authority for term: OAC rule 3745-31-05(D))

3. Operational Restrictions

a) The following annual operational restrictions are in place in PTI P0116276 to maintain facility-wide HAPs compliance for McWane Ductile - Ohio (0616010006):

(1) 275,000 tons of total metal melted.

(Authority for term: OAC rule 3745-31-05(D))

b) In order to maintain compliance with the facility-wide emission limitations established in PTI P0116276 on HAPS, only materials that contain no organic HAP are to be used at the following McWane Ductile - Ohio (0616010006) emissions units:

(1) Pipe Paint Operations – Small Line (K006);

(2) Pipe Painting Operation – Large Line (K015)

c) The following annual operational restrictions are in place in PTI P0119009 to maintain compliance with the facility-wide emission limitations on HAPs for McWane Poles (0616015010):

(1) 2,190 gallons of coating (K022);

(2) 27,000 tons of poles (P902-P906);

(3) 19.5 tons of electrode (P907);

(4) 19.5 tons of electrode (P908);

(5) 180 tons of grit (P909);

(6) 6,000 hours of operation for Cartridge Filter A, controlling emissions units P902-P904, and P912;



- (7) 6,000 hours of operation for Filter C, controlling emissions units P906 and P907;
- (8) 6,000 hours of operation and 54,000 million Btu of natural gas at drying oven (R008);
- (9) 108,000 gallons of coating and 250 gallons of cleanup material (R008).

d) In order to maintain compliance with the facility-wide emission limitations on HAPs, the facility, McWane Ductile – Ohio (0616010006), is limited to the following annual operational restrictions:

- (1) 9,000 gallons of coating and 500 gallons of cleanup (K002);
- (2) 14,000 gallons of coating and 250 gallons of cleanup (K024);
- (3) 400 gallons of coating (K025);
- (4) 4,000 tons of material blasted (P911);

(Authority for term: OAC rule 3745-31-05(D))

4. Facility-Wide Monitoring and/or Record Keeping Requirements

a) The following information must be maintained each month for McWane Ductile - Ohio (0616010006):

- (1) the quantity of metal melted, in tons;
- (2) the rolling, 12-month summation of the quantity of metal melted, in tons; and
- (3) the rolling, 12-month summation of the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons;
- (4) the throughput of coating and cleanup, in gallons, for each month (K002);
- (5) beginning after the first 12 calendar months of operation, the rolling 12-month summation of the throughput of coating and cleanup, in gallons (K002)
- (6) also during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of coating and cleanup, in gallons for each calendar month (K002);
- (7) the throughput of coating and cleanup, in gallons, for each month (K024);
- (8) beginning after the first 12 calendar months of operation, the rolling 12-month summation of the throughput of coating and cleanup, in gallons (K024)
- (9) also during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of coating and cleanup, in gallons for each calendar month (K024);
- (10) the throughput of coating, in gallons, for each month (K025);



- (11) beginning after the first 12 calendar months of operation, the rolling 12-month summation of the throughput of coating, in gallons (K025)
- (12) also during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of coating, in gallons for each calendar month (K025);
- (13) the throughput of material blasted, in tons, for each month (P911);
- (14) beginning after the first 12 calendar months of operation, the rolling 12-month summation of the throughput of material blasted, in tons (P911);
- (15) also during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of material blasted, in tons, for each calendar month (P911); and
- (16) the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.

(Authority for term: OAC rule 3745-31-05(D))

- b) As required by PTI P0116276, the following information shall be collected and recorded each month for each of the HAP emitting emissions units located at McWane Ductile - Ohio (0616010006):

- (1) For any month that a material containing organic HAP is used:
 - a. the company identification for each HAP-containing coating and cleanup material employed during the month;
 - b. the number of gallons of each HAP-containing coating or cleanup material employed during the month;
 - c. the organic HAP content of each coating and cleanup material, in pounds per gallon; and
 - d. the total organic HAP emission rate for all coatings and cleanup materials, in tons.

(Authority for term: OAC rule 3745-31-05(D))

- (2) For any month that a material containing no organic HAP is used:
 - a. the company identification for each coating or cleanup material employed that contains no organic HAP employed during the month (a coating may be assumed to be employed during the month if it is purchased or released); and
 - b. the Material Safety Data Sheet or coating sheet for the coating or cleanup material identified in 4.b)(2)a.

(Authority for term: OAC rule 3745-31-05(D))



- c) As required by PTI P0119009, the following information shall be recorded each month for McWane Poles (0616015010):
- (1) the throughput of coating and cleanup material usage, in gallons, for each month (K022);
 - (2) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of coating and cleanup material usage (K022);
 - (3) also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of coating and cleanup material usage, for each calendar month (K022);
 - (4) the throughput of poles, in tons, for each month (P902-P906);
 - (5) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of poles, in tons (P902-P906);
 - (6) also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of poles, in tons, for each calendar month (P902-P906);
 - (7) the operating hours for Cartridge Filter A and Cartridge Filter C;
 - (8) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the operating hours of Cartridge Filter A and Cartridge Filter C;
 - (9) also, during the first 12 calendar months of operation, the permittee shall record the cumulative operating hours of Cartridge Filter A and Cartridge Filter C for each calendar month;
 - (10) the throughput of electrode, in tons, for each month (P907 and P908);
 - (11) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of electrode, in tons (P907 and P908);
 - (12) also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of electrode, in tons for each calendar month (P907 and P908);
 - (13) the throughput of grit, in tons, for each month (P909);
 - (14) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of grit, in tons (P909);
 - (15) also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of grit, in tons for each calendar month (P909);
 - (16) the throughput of topcoat, in gallons, for each month (R008);
 - (17) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of topcoat, in gallons (R008);



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- (18) also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of topcoat, in gallons, for each calendar month (R008);
- (19) the throughput of cleanup, in gallons for each month (R008);
- (20) beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of cleanup, in gallons (R008);
- (21) also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of cleanup, in gallons, for each calendar month (R008);
- (22) the maximum heat input of the drying oven, in million BTU, for each month (R008);
- (23) beginning after the first 12 calendar months of operation, the rolling 12-month summation of the maximum heat input of the drying oven, in million BTU (R008);
- (24) also during the first 12 calendar months of operation, the permittee shall record the cumulative maximum heat input of the drying oven, in million BTU, for each calendar month (R008); and,
- (25) the rolling, 12-month summation of the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.

(Authority for term: OAC rule 3745-31-05(D))

- d) The permittee shall maintain monthly records of the rolling, 12-month summation of the facility-wide, McWane Poles (0616015010) and McWane Ductile - Ohio (0616010006) combined, HAP and facility-wide total combined HAP emissions, in tons (Summation of 4.a)(4), 4.b)(1)d., and 4.c)(25)). The facility, McWane Ductile - Ohio (0616010006) combined with McWane Poles (0616015010), has sufficient records to begin calculating and tracking compliance with the rolling emissions limitations and operational restrictions upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(D))

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.

(Authority for term: OAC rule 3745 15 03(B)(1)(a), OAC rule 3745 15 03(C), and OAC rule 3745-31-05(D))

- b) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions limitations in 2.a). The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(D))



- c) The permittee shall notify the Ohio EPA, Southeast District Office of any monthly record showing an exceedance of the rolling, 12-month operational restrictions in 3.a) and 3.c) or any deviation from the no organic HAP coating restrictions specified in 3.b). A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-31-05(D))

6. Testing Requirements

- a) Compliance with the facility-wide (i.e. McWane Ductile - Ohio (0616010006) and McWane Poles (0616015010) combined) individual HAP and total combined HAP emission limitations shall be based upon a rolling, 12-month summation of the monthly emissions figures determined in accordance with the recordkeeping requirements in 4.a) and 4.b)(1)(d) for all HAP emitting emission units. Calculations shall follow the methodology presented in Attachment 2 of the amended permit-to-install application received on November 21, 2006, for McWane Ductile - Ohio (0616010006), and the methodology presented in the calculations attachment of the amended permit-to-install application received December 10, 2013, for McWane Poles (0616015010) and any subsequent revisions to that methodology approved by Ohio EPA.

(Authority for term: OAC rule 3745-31-05(D))

- b) Compliance with the annual operational restrictions (throughputs, hours of operation, and input of the drying oven) shall be based upon a rolling, 12-month summation of the monthly usage figures determined in accordance with the recordkeeping requirements in 4.a) and 4.c).

(Authority for term: OAC rule 3745-31-05(D))

- c) Compliance with the no organic HAP coatings restrictions shall be demonstrated based upon the record keeping requirements specified in 4.b).

(Authority for term: OAC rule 3745-31-05(D))

1. The following emissions units contained in this permit are subject to the requirements of 40 CFR Part 63 Subpart 40 CFR 63 Subpart ZZZZZ – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries Area Sources: P901, F065, F066 and all fugitive emissions from foundry operations. The complete requirements of this rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.

2. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, 3745-21, and 3745-31, and/or 40 CFR Part 60 or 63:

EU ID	Operations, Property and/or Equipment Description
F020	Solid waste storage bunkers
F023	Pattern shop operations



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F031	Shell core machine No. 5 - pipe
F046	Drying oven - large line
F054	Shell core machine No. 2 - pipe
F055	Shell core machine No. 1 - pipe
F056	Shell core machine No. 6 - pipe
F057	Shell core machine No. 7 - pipe
L001	Parts washer No. 1
L002	Parts washer No. 2
L003	Parts washer No. 3
L004	Parts washer No. 4
L005	Parts washer No. 5
L006	Parts washer No. 6
L007	Parts washer No. 7
L008	Parts washer No. 8
L009	Parts washer No. 9
L010	Parts washer No. 10
L011	Parts washer No. 11
P039	Main Office Emergency Generator
K026	K026 Protecto Stencil/Stripe



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C. Emissions Unit Terms and Conditions



1. F004, Desulfurization and inoculation

Operations, Property and/or Equipment Description:

Desulfurization and inoculation ladles - Ladles 380.B4 & H9 with a maximum hourly throughput of 85 tons/hr; controlled by baghouse 250.F3 with 99% capture and 99% control

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.	None.	See b)(2)a. below.

(2) Additional Terms and Conditions

a. This facility is not located in an area identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07 and OAC rule 3745-17-08, respectively.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

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. None.



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g) Miscellaneous Requirements

(1) None.



2. F017, Charge handling

Operations, Property and/or Equipment Description:

Charge handling; includes coke and limestone bins, scrap yard 1 (north), scrap yard II (south) and metallic charge makeup hopper with a maximum throughput of 275,000 tons of metal per year; uncontrolled

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 3745-17-07 OAC rule 3745-17-08	See b)(2)a. below.

(2) Additional Terms and Conditions

a. This facility is not located in an area identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07 and OAC rule 3745-17-08, respectively.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))



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McWane Ductile - Ohio

Permit Number: P0089138

Facility ID: 0616010006

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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. None.

g) Miscellaneous Requirements

(1) None.



3. F018, Centrifugal casting machines 1-6

Operations, Property and/or Equipment Description:

Centrifugal Casting Machines 1 through 6 with a maximum hourly throughput of 85 tons/hr; uncontrolled

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)	<p>Particulate emissions (PE) shall not exceed 10.20 pounds per hour and 44.68 tons per year.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.</p> <p>See b)(2)a. – b. below.</p> <p>Nitrogen Oxides (NOx) emissions shall not exceed 8.50 pounds per hour and 37.23 tons per year.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 11.90 pounds per hour and 52.12 tons per year.</p>
b.	OAC rule 3745-17-08(B), OAC rule 3745-17-07(B)	See b)(2)c. below.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on the Centrifugal casting machine for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee shall use continuous casting molds to ensure



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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- b. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- c. This facility is not located in an area identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07 and OAC rule 3745-17-08, respectively.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain annual records of the metal poured in this emissions unit.

(Authority for term: OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

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 eBuisness Center: Air Services online web portal.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

f) Testing Requirements

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

- a. Emission Limitation

PE/PM shall not exceed 10.20 pounds per hour and 44.68 tons per year.

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by the following one time calculation using the maximum process weight rate.



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PE/PM (lbs/hr) = 85 tons per hour (max. process weight rate) x 0.12 lb PE/PM per ton of metal poured (Emission Factor from McKinley, " Air Emissions from Permanent Mold Casting of Ductile Iron Pipe" 1994) = 10.20 lbs/hr PE/PM

If required, particulate emissions 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 written approval from Ohio EPA, Southeast District Office.

Compliance with the annual emissions limitation shall be determined by multiplying the PE/PM emission rate of 0.12 lb PE/PM per ton of metal poured by the actual annual production rate, and dividing by 2,000.

b. Emission Limitation

NOx emissions shall not exceed 8.50 pounds per hour and 37.23 tons per year.

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by the following one time calculation using the maximum process weight rate.

NOx (lbs/hr) = 85 tons per hour (max. process weight rate) x 0.10 lb NOx per ton of metal poured (Emission Factor from McKinley, " Air Emissions from Permanent Mold Casting of Ductile Iron Pipe" 1994) = 8.50 lbs/hr

Compliance with the annual emission limitation shall be demonstrated by multiplying the NOx emissions factor of 0.010 lb NOx per ton of metal poured by the actual annual production rate, and dividing by 2,000.

c. Emission Limitation

VOC emissions shall not exceed 11.90 pounds per hour and 52.12 tons per year.

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by the following one time calculation using the maximum process weight rate.

VOC (lbs/hr) = 85 tons per hour (max. process weight rate) x 0.14 lb VOC per ton of metal poured (Emission Factor from McKinley, " Air Emissions from Permanent Mold Casting of Ductile Iron Pipe" 1994) = 11.90 lbs/hr

If required, nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 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 written approval from Ohio EPA, Southeast District Office.



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Compliance with the annual emission limitation shall be demonstrated by multiplying the VOC emissions factor of 0.14 lb VOC per ton of metal poured by the actual annual production rate, and dividing by 2,000.

g) Miscellaneous Requirements

(1) None.



4. F019, Paved and unpaved roadways and parking areas

Operations, Property and/or Equipment Description:

Paved and unpaved roadways and parking areas

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), as effective June 30, 2008	Develop and implement a site-specific work practice plan designed as described in paragraph d)(1) below to minimize or eliminate fugitive dust emissions. See also paragraph b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this air contaminant source since the calculated annual emission rate is less than 10 tons/year taking into account the voluntary restriction from OAC rule 3745-31-05(E). See b)(2)b. below.
c.	OAC rule 3745-31-05(E), as effective June 30, 2008	Fugitive particulate emissions (PE) shall not exceed 5.89 tons/year.

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(A)(3)(a)(ii))



- b. These requirements apply once U.S. EPA approves the OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(A)(3)(a)(ii))

- c. This facility is not located in an area identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07 and OAC rule 3745-17-08, respectively.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Work Practice Plan

The permittee shall develop and implement a site-specific Work Practice Plan designed to minimize or eliminate fugitive dust from the permittees paved and unpaved roadways and parking areas. This Work Practice Plan shall include, at a minimum, the following elements:

- a. An identification of each segment of unpaved roadway or parking area for which the plan applies.
- b. A determination of the frequency that each roadway or parking area will be inspected to determine if additional control measures are needed.
- c. The identification of the record keeping form/record that will be used to track the inspection and treatment of the roadways/parking areas. This form/record should include, at a minimum, the following elements:
 - i. Roadway or parking area segment inspected;
 - ii. Date inspected;
 - iii. Name of employee who either did the inspection or who can verify that the inspection was completed;
 - iv. Result of the inspection (needs treated or does not need treated);
 - v. A description of why no treatment was needed;
 - vi. Date treated;
 - vii. Name of employee who either treated the segment or who can verify that the segment was treated; and
 - viii. Method used to treat the segment.



- d. A description of how and where the records shall be maintained.

The initial Work Practice Plan was submitted and approved as Exhibit B to permit P0118171, issued final August 4, 2015.

The permittee shall begin using the Work Practice Plan within 30 days from the date Ohio EPA (Southeast District Office) approved the initial plan. As needs warrant, the permittee can modify the Work Practice Plan. The permittee shall submit a copy of proposed revisions to the Work Practice Plan to the Southeast District Office for review and approval. The permittee shall not begin using the revised Work Practice Plan until such time the Southeast District Office approves its use. If Ohio EPA Southeast District Office does not respond to a request for modified work practice terms within 30 days, the request for modification of the work practice plan may then be submitted to the Assistant Chief, Permitting, DAPC Central Office for approval.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(A)(3)(a)(ii))

- (2) Work Practice Plan Inspections

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(A)(3)(a)(ii))

- (3) Work Practice Plan Record Keeping

The permittee shall maintain records of the following information:

- a. The records required to be collected under the Work Practice Plan, and
- b. The date and reason any element of the Work Practice Plan was not implemented.

The permittee shall maintain these records in accordance to the Standard Terms and Conditions of Part I of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(A)(3)(a)(ii))

- e) Reporting Requirements



- (1) The permittee shall submit semi-annual deviation reports concerning any failure to implement the Work Practice Plan in accordance with the reporting requirements of the Standard Terms and Conditions of Part I of this permit.

(Authority for term: OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C))

f) Testing Requirements

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

- a. Emission Limitation:

Fugitive PE shall not exceed 5.89 tons/year.

Applicable Compliance Method:

Compliance with fugitive PE limitation shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 1/11) for paved roadways and Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for unpaved roadways. Should further updates in AP-42 occur, the most current equations for unpaved roads shall be used. Compliance with fugitive PE limitations shall be determined by posting and enforcing the 15 MPH speed limit on the emissions unit and inspection and conducting vacuum sweeping of the emissions unit, both of which were elements of calculating the fugitive PE limitation.

Paved Roadways:

Calculations for paved roadways were done in accordance with the permittee's application A0052388 submitted December 11, 2014, using the following equation and inputs:

$$EF = ((k * (sL)^{0.91} * (W)^{1.02}) * (1 - P / 4 * 365))$$

Where:

EF = particulate emission factor (lb/VMT)

k = particle size multiplier (lb/VMT) = 0.011 (AP-42, 13.2.1 (2/2011))

sL = road surface silt loading (g/m²) = 9.7 (AP-42, Table 13.2.1-3 (1/2011))

W = mean vehicle weight (tons) = see permittee's application A0052388 submitted December 11, 2014

P = number of days/year with > 0.01 inch precipitation = 140

Total Vehicle Miles Traveled = 127,948.9 miles/year (as submitted in A0052388)



Assume 95.48% control efficiency for a speed limit of 15 MPH (80% RACM), bi-weekly vacuum sweeping (75% RACM), and natural mitigation (9.59% AP-42 13.2.1)

$$(122.132 \text{ tons of PE uncontrolled}) * (1 - .9548) = 5.51 \text{ tons/year}$$

Unpaved roadways:

$$EF = ((k * (s/12)^a * (W/3)^b) * (365 - p) / 365)$$

Where:

EF = particulate emission factor (lb/VMT)

k = 4.9 (AP-42, 13.2.2 11/2006)

s = surface material silt content (%) = 6% (AP-42, Table 13.2.2-1 (11/2006))

a = 0.7 (AP-42, 13.2.2 11/2006)

W = mean vehicle weight (tons) = 26.64 (as submitted in A0052388)

b = 0.45 (AP-42, 13.2.2 11/2006)

P = number of days/year with > 0.01 inch precipitation = 140

Therefore EF = 4.97 lb/VMT

Maximum travel = 752.72 miles/year (as submitted in A0052388)

$$(752.72 \text{ VMT/year}) * (4.97 \text{ lb/VMT}) * (1 \text{ ton} / 2,000 \text{ lbs}) = 1.87 \text{ ton/year}$$

Assume 80% control efficiency for speed limit of 15 MPH (RACM)

$$(1.87 \text{ ton/year}) * (1 - .80) = 0.37 \text{ ton/year}$$

Total Roadway and Parking Area Emissions:

$$(5.51 \text{ tons/year}) + (0.37 \text{ ton/year}) = 5.89 \text{ tons/year}$$

(Authority for term: OAC rule 3745-31-05(E))

g) Miscellaneous Requirements

(1) None.



McWane Ductile - Ohio

F019, ROADWAYS AND PARKING AREAS DEVELOPED WORK PRACTICE PLAN

IDENTIFIED INSPECTION AND VACUUM SWEEPING FREQUENCY FOR THIS WORK PRACTICE PLAN

Inspections of a representative road segment and parking area shall be conducted during all days that the facility is operating. The representative roadway shall be segment R17, or the highest emitting paved roadway at McWane Ductile - Ohio, and the representative parking area shall be P2, or the highest emitting parking area at McWane Ductile - Ohio, according to Exhibit A to this plan.

Vacuum sweeping shall be conducted on an as-needed basis based on the inspections, and a speed limit of 15 MPH shall be posted and enforced. No vacuum sweeping shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with applicable requirements. Any vacuum sweeping that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended.

DESCRIBE THE METHOD THAT RECORDS WILL BE KEPT AND MAINTAINED

Records shall be kept according to a form substantially similar to Exhibit B to this plan, and shall be maintained and accessible by the Environmental Department. Any field recorded data or other documentation required by this plan may be filed in the Environmental Department or scanned electronically.

DESCRIBE THE DEVIATIONS TO THIS PLAN AND RECORDS TO BE SUBMITTED.

Any time this Work Practice Plan is not followed as developed, a deviation to the permit terms and conditions has occurred. This Work Practice Plan identifies the following as deviation to the plan:

- (1) Failure to conduct required sweeping;
- (2) Failure to post the speed limit as required by the plan; and
- (3) Failure to conduct an annual plan review as described by this plan.

All deviations, as described in this Work Practice Plan, shall be submitted as required by the permit terms and conditions.

WORK PRACTICE PLAN REVIEW

At a minimum, this Work Practice Plan shall be reviewed on an annual basis. The purpose of the annual review is to ensure appropriate control measures are available, due to a change in control measures employed, ensure that the sweeping frequency is appropriate, and to update any changes to the road surface conditions (i.e., width, length, or additional road segments). The roadways at McWane Ductile - Ohio have the potential to change due to changes to the facility. Additional roads may be necessary. In addition, traffic patterns may change. The annual review shall be completed by January 31st of each year, beginning in 2016, and cover the previous 12-month observation period.



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EXHIBIT A



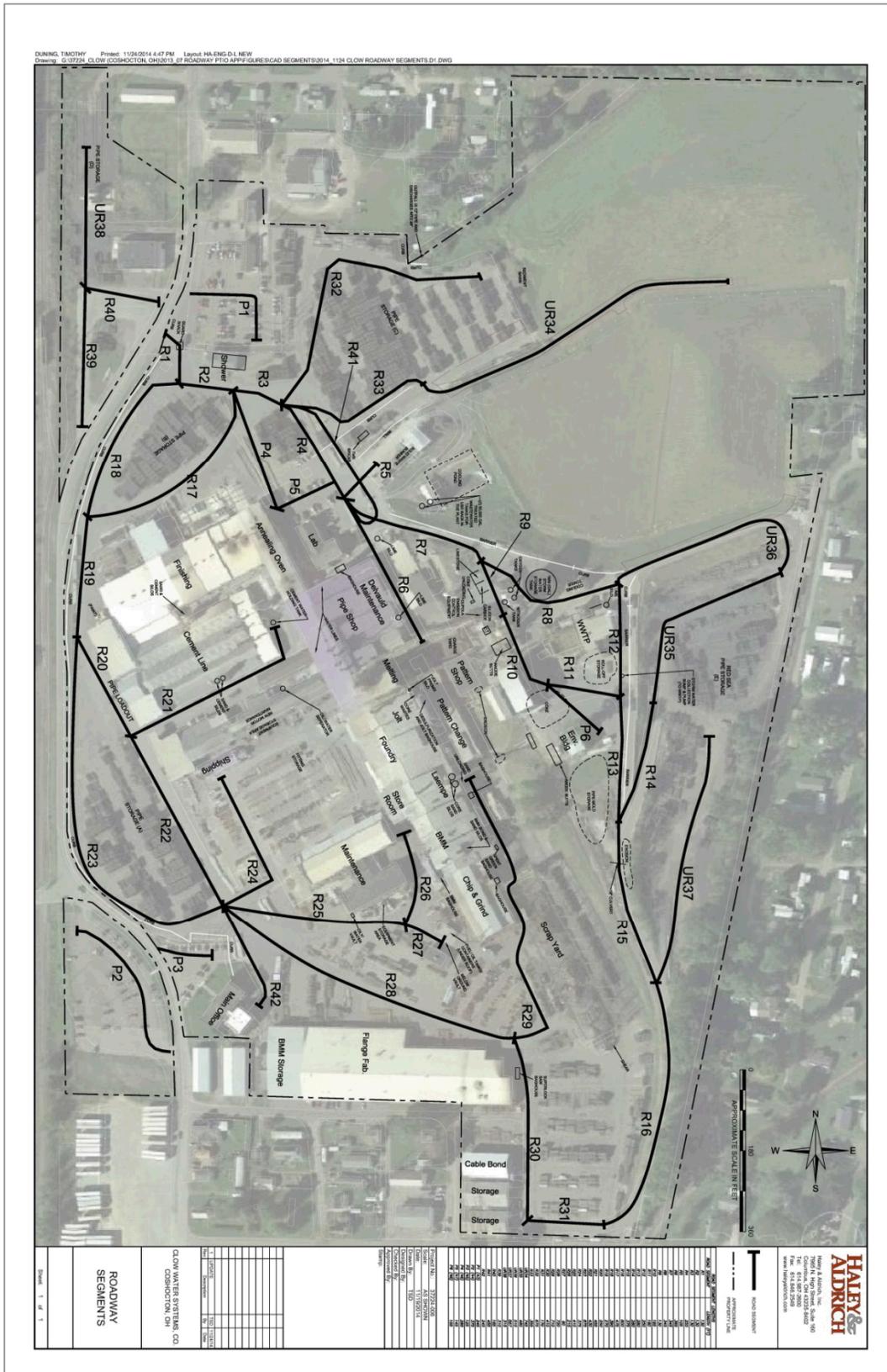
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EXHIBIT B

McWane Ductile - Ohio

F019 – PAVED ROADWAYS & PARKING AREAS

REPORT YEAR:

Facility ID 0616010006

DEVELOPED WORK PRACTICE PLAN

MONTH:

DAY	PAVED ROADWAY AND PARKING AREA SEGMENTS	SEGMENT INSPECTION		INSPECTION RESULTS		REASON WHY NO TREATMENT NEEDED				INSPECTOR (initials)
		YES	NO	Treatment Needed	No Treatment Needed	No Dust Observed	Roadway Wet	Snow Covered	Moisture Content Sufficient	
1	R17									
	P2									
2	R17									
	P2									
3	R17									
	P2									
4	R17									
	P2									
5	R17									
	P2									
6	R17									
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10	R17									
	P2									
11	R17									
	P2									
12	R17									
	P2									
13	R17									
	P2									
14	R17									
	P2									
15	R17									



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	P2									
16	R17									
	P2									
17	R17									
	P2									
18	R17									
	P2									
19	R17									
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29	R17									
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30	R17									
	P2									
31	R17									
	P2									



5. F028, Coupon Cutting

Operations, Property and/or Equipment Description:

Cutting of 6" X 6" coupons from ductile iron pipe for quality testing with maximum throughput rate of four coupons per hour; uncontrolled

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), as effective 11/30/2001	Fugitive particulate emissions (PE) shall not exceed 5.61 tons per year. Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a.-c. below.
b.	OAC rule 3745-31-05(A)(3), as effective 12/1/2006	See b)(2)d. below.
c.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)e. and f. below.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best available Technology (BAT) requirements pursuant to OAC rule 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 regulation for NAAQS pollutant emissions 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 revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- b. The permittee shall employ best available control measures on the coupon cutting process for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee shall limit the coupons cut per hour to 4 and coupon size to 6" x 6", and good housekeeping practices shall be employed to minimize or eliminate the re-entrainment of cutting/grinding dust into the ambient air to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional measures to ensure compliance.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- 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 best available technology requirements of OAC rule 3745-31-05.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- e. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).

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

c) Operational Restrictions

- (1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))
- (2) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any visible emissions of fugitive dust were observed from this emissions unit; and
 - b. any corrective actions taken to eliminate the visible emissions.



These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

f) Testing Requirements

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

a. Emissions Limitations:

Fugitive PE shall not exceed 5.61 tons per year.

Applicable Compliance Method:

Compliance with the emissions limitation shall be demonstrated based upon the following equation:

$$E = M \times EF \times 8,760 / 2,000 \text{ lbs/ton}$$

where:

E = the emission rate, in tons per year;

M = the coupon cutting rate, in coupons per hour; and

EF = the emission factor for PE (per the permittee's application) of 0.32 pounds of PE per coupon

$$E = (4 \text{ coupons per hour} \times 0.32 \text{ pound PE/coupon} \times 8,760 \text{ hours per year}) / 2,000 \text{ pounds per ton}$$

$$= 5.61 \text{ tons PE per year}$$

b. Emissions Limitation:

Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.



6. F065, Specialty Shell Core Machine

Operations, Property and/or Equipment Description:

3.85 ton per hour uncontrolled core making machine processing resin-coated sand and equipped with a 3.0 million BTU/hour natural gas-fired process heater; maximum throughput rate of 5,500 tons of resin-coated sand per rolling, 12-month period

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) d)(2)-(5) and e)(3)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Synthetic minor to restrict federally enforceable potential to emit of this emissions unit to accommodate future projects)	<p>Volatile organic compound (VOC) emissions shall not exceed 0.89 tons per rolling, 12-month period.</p> <p>Particulate emissions (PE) shall not exceed 0.47 ton per rolling, 12-month period.</p> <p>PM₁₀ emissions shall not exceed 0.43 ton per rolling, 12-month period.</p> <p>See c)(1) below.</p>
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	<p>The emissions limitations established pursuant to this rule for VOC, PE and PM₁₀ are equivalent to the emissions limitations established pursuant to OAC rule 3745-31-05(D).</p> <p>See b)(2)a. below.</p>
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE and PM₁₀ emissions from this air contaminant source since the potential to emit is less than 10 tons/year.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the calculated annual emissions rate is less than 10 tons/year taking into account the restriction from OAC rule 3745-31-05(D). See b)(2)b. below.
e.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)c. below.
f.	40 CFR Part 63, Subpart ZZZZZ (40 CFR 63.10880 – 10906) [In accordance with 40 CFR 63.10880 (a), this facility is classified as an existing large iron and steel foundry that is an area source of HAPs that commenced construction or reconstruction before September 17, 2007 with an annual metal melt production rate of 20,000 tons or greater.]	See c)(2) and d)(6) below.
g.	40 CFR 63.1-15 (40 CFR 63.7760)	Table 3 to Subpart ZZZZZ of 40 CFR Part 63 – Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. This Best Available Control (BAT) emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-5(A)(3), OAC rule 3745-77-07(C))

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-5(A)(3), OAC rule 3745-77-07(C))



- c. This facility is located in Coshocton County, which is not identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions from this emissions unit are exempt from the fugitive dust control requirements and visible emission limitation established in OAC rules 3745-17-08(B) and 3745-17-07(B), respectively.

c) Operational Restrictions

- (1) The permittee has requested a federally enforceable limitation on resin-coated sand throughput for the purposes of limiting potential to emit of VOC, PE and PM₁₀. Therefore, the maximum throughput rate of resin-coated sand shall not exceed 5,500 tons as a rolling, 12-month summation. 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 throughput rate upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

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

63.10886	For each furfuryl alcohol warm box mold or core making line, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.
----------	---

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. the total throughput of resin-coated sand, in tons, of this emissions unit;
 - b. the total throughput of core wash, in gallons, of this emissions unit;
 - c. the rolling, 12-month summation of throughput of resin-coated sand, in tons (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months);
 - d. the rolling, 12-month summation of throughput of core wash, in gallons (i.e., the throughput for the current month added to the throughput of the previous 11 calendar months);
 - e. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the core wash throughput, in gallons; and.



- f. the rolling, 12-month summation of the total VOC, PE and PM₁₀ emissions

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permit-to-install application for emissions units, F065, F066, and P034 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminants emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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



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

Toxic Contaminant: Ammonia

TLV (mg/m³): 17

Maximum Hourly Emission Rate (lbs/hr): 13.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 126.3

MAGLC (ug/m³): 404.76

The permittee, has demonstrated that emissions of ammonia from emissions units F065, F066, and P034, are calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the



emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

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

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

(5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

(6) The permittee shall comply with all the applicable monitoring and recordkeeping requirements under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:



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63.10889(b)(4)	You must keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by 63.10886. These records must be the MSDS (provided it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.
63.10889(b)(5)	You must keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, MSDS, or other documentation that provides information on the binder or coating materials used.

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the rolling, 12-month resin-coated sand throughput limitation specified in c)(1); and
 - b. all exceedances of the rolling, 12-month VOC, PE and PM₁₀ emissions limitations specified in b)(1)a.

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:
 - a. the original model input;
 - b. the updated model input;
 - c. the reason for the change(s) to the input parameter(s); and



- d. a summary of the results of the updated modeling, including the input changes; and
- e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

f) **Testing Requirements**

- (1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. **Emissions Limitation:**

VOC emissions shall not exceed 0.89 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the tons per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

VOC (tons/rolling, 12-month period) = [(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1) X VOC emissions factor) + (0.033 lb/hr (hourly PTE of process heater) X 8,760 hours/yr)] X 1 ton/2,000 lbs

Where:

0.270 lbs VOC/ton of sand = VOC emissions factor for process (from permittee's application based on vendor-supplied emissions information).

If required, formulation data or USEPA Method 24 may be used to determine the VOC content of the resin-coated sand.

- b. **Emissions Limitation:**

PE shall not exceed 0.47 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the ton per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

PE (tons/rolling, 12-month period) = [(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1) X PE emissions factor for resin-coated sand X (1-building settling factor)) + (0.021 lb/hr (hourly



PTE of process heater) X 8,760 hours/yr) + (actual gallons of core wash used per rolling, 12-month period as determined pursuant to d)(1) X PE emissions factor for core wash X (1 – transfer efficiency) X (1 – building settling factor))] X 1 ton/2,000 lbs

Where:

PE emissions factor for resin-coated sand = 0.35 lb PE/ton of sand (RACM Table 2.7-1, 9/80);

Building settling factor = 70% (per permittee’s application);

PE emissions factor for core wash = 0.38 lb PE/gallon of wash (Refcobar 7502 as applied emissions factor);

Transfer efficiency = 70% (per permittee’s application).

c. Emissions Limitation:

PM₁₀ emissions shall not exceed 0.43 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the ton per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

PM₁₀ (tons/rolling, 12-month period) = [(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1) X PM₁₀ emissions factor for resin-coated sand X (1-building settling factor)) + (0.021 lb/hr (hourly PTE of process heater) X 8,760 hours/yr) + (actual gallons of core wash used per rolling, 12-month period as determined pursuant to d)(1) X PE emissions factor for core wash X (1 – transfer efficiency) X (1 – building settling factor))] X 1 ton/2,000 lbs

Where:

PM₁₀ emissions factor for resin-coated sand = 0.30 lb PE/ton of sand (RACM Table 2.7-1, 9/80);

Building settling factor = 70% (per permittee’s application);

PM₁₀ emissions factor for core wash = 0.38 lb PE/gallon of wash (Refcobar 7502 as applied emissions factor);

Transfer efficiency = 70% (per permittee’s application).

g) Miscellaneous Requirements

(1) None.



7. F066, Specialty Shell Core Machine #8

Operations, Property and/or Equipment Description:

3.85 ton per hour uncontrolled core making machine processing resin-coated sand and equipped with a 3.0 million BTU/hour natural gas-fired process heater; maximum throughput rate of 5,500 tons of resin-coated sand per rolling, 12-month period; Administrative Modification of PTI P0116810, issued final 12/12/2014

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) d)(2)-(5) and e)(3)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Synthetic minor to restrict federally enforceable potential to emit of this emissions unit to accommodate future projects)	<p>Volatile organic compound (VOC) emissions shall not exceed 0.89 tons per rolling, 12-month period.</p> <p>Particulate emissions (PE) shall not exceed 0.47 ton per rolling, 12-month period.</p> <p>PM₁₀ emissions shall not exceed 0.43 ton per rolling, 12-month period.</p> <p>See c)(1) below.</p>
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	<p>The emissions limitations established pursuant to this rule for VOC, PE and PM₁₀ are equivalent to the emissions limitations established pursuant to OAC rule 3745-31-05(D).</p> <p>See b)(2)a. below.</p>
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE and PM₁₀ emissions from this air contaminant source since the potential to emit is less than 10 tons/year.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the calculated annual emissions rate is less than 10 tons/year taking into account the restriction from OAC rule 3745-31-05(D). See b)(2)b. below.
e.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)c. below.
f.	40 CFR Part 63, Subpart ZZZZZ (40 CFR 63.10880 – 10906) [In accordance with 40 CFR 63.10880 (a), this facility is classified as an existing large iron and steel foundry that is an area source of HAPs that commenced construction or reconstruction before September 17, 2007 with an annual metal melt production rate of 20,000 tons or greater.]	See c)(2) and d)(6) below.
g.	40 CFR 63.1-15 (40 CFR 63.7760)	Table 3 to Subpart ZZZZZ of 40 CFR Part 63 – Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. This Best Available Control (BAT) emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))



- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- c. This facility is located in Coshocton County, which is not identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions from this emissions unit are exempt from the fugitive dust control requirements and visible emission limitation established in OAC rules 3745-17-08(B) and 3745-17-07(B), respectively.

c) Operational Restrictions

- (1) The permittee has requested a federally enforceable limitation on resin-coated sand throughput for the purposes of limiting potential to emit of VOC, PE and PM₁₀. Therefore, the maximum throughput rate of resin-coated sand shall not exceed 5,500 tons as a rolling, 12-month summation. To ensure compliance during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the throughput levels specified in the following table:

Months(s):	Maximum Cumulative Throughput Rate (Tons):
1-1	458
1-2	917
1-3	1,375
1-4	1,833
1-5	2,291
1-6	2,749
1-7	3,207
1-8	3,665
1-9	4,123
1-10	4,581
1-11	5,039
1-12	5,500



After the first 12 calendar months of operation following the startup of emissions unit F066, compliance with the annual resin-coated sand throughput limitation shall be based upon a rolling, 12-month summation of the resin-coated sand throughput.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

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

Table with 2 columns: ID (63.10886) and Description (For each furfuryl alcohol warm box mold or core making line, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.)

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
a. the total throughput of resin-coated sand, in tons, of this emissions unit;
b. the total throughput of core wash, in gallons, of this emissions unit;
c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the core wash throughput, in gallons;
d. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative core wash throughput, in gallons, for each calendar month;
e. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the resin-coated sand throughput, in tons;
f. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative resin-coated sand throughput, in tons, for each calendar month; and
g. the rolling, 12-month summation of the total VOC, PE and PM10 emissions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permit-to-install application for emissions units, F065, F066, and P034 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air



contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminants emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: Ammonia

TLV (mg/m3): 17



Maximum Hourly Emission Rate (lbs/hr): 13.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 126.3

MAGLC (ug/m3): 404.76

The permittee, has demonstrated that emissions of ammonia from emissions units F065, F066, and P034, are calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))



- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (6) The permittee shall comply with all the applicable monitoring and recordkeeping requirements under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10889(b)(4)	You must keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by 63.10886. These records must be the MSDS (provided it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.
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63.10889(b)(5)	You must keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, MSDS, or other documentation that provides information on the binder or coating materials used.
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(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the rolling, 12-month resin-coated sand throughput limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative resin-coated sand throughput rates;
 - b. all exceedances of the rolling, 12-month VOC, PE and PM₁₀ emissions limitations specified in b)(1)a.

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:
 - a. the original model input;
 - b. the updated model input;
 - c. the reason for the change(s) to the input parameter(s); and
 - d. a summary of the results of the updated modeling, including the input changes; and
 - e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.



If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

f) Testing Requirements

(1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

VOC emissions shall not exceed 0.89 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the tons per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

VOC (tons/rolling, 12-month period) = [(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1) X VOC emissions factor) + (0.033 lb/hr (hourly PTE of process heater) X 8,760 hours/yr)] X 1 ton/2,000 lbs

Where:

0.270 lbs VOC/ton of sand = VOC emissions factor for process (from permittee's application based on vendor-supplied emissions information).

If required, formulation data or USEPA Method 24 may be used to determine the VOC content of the resin-coated sand.

b. Emissions Limitation:

PE shall not exceed 0.47 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the ton per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

PE (tons/rolling, 12-month period) = [(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1) X PE emissions factor for resin-coated sand X (1-building settling factor)) + (0.021 lb/hr (hourly PTE of process heater) X 8,760 hours/yr) + (actual gallons of core wash used per rolling, 12-month period as determined pursuant to d)(1) X PE emissions factor for core wash X (1 – transfer efficiency) X (1 – building settling factor))] X 1 ton/2,000 lbs

Where:



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PE emissions factor for resin-coated sand = 0.35 lb PE/ton of sand (RACM Table 2.7-1, 9/80);

Building settling factor = 70% (per permittee's application);

PE emissions factor for core wash = 0.38 lb PE/gallon of wash (Refcobar 7502 as applied emissions factor);

Transfer efficiency = 70% (per permittee's application).

c. Emissions Limitation:

PM₁₀ emissions shall not exceed 0.43 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the ton per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

PM₁₀ (tons/rolling, 12-month period) = [(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1) X PM₁₀ emissions factor for resin-coated sand X (1-building settling factor)) + (0.021 lb/hr (hourly PTE of process heater) X 8,760 hours/yr) + (actual gallons of core wash used per rolling, 12-month period as determined pursuant to d)(1) X PE emissions factor for core wash X (1 – transfer efficiency) X (1 – building settling factor))] X 1 ton/2,000 lbs

Where:

PM₁₀ emissions factor for resin-coated sand = 0.30 lb PE/ton of sand (RACM Table 2.7-1, 9/80);

Building settling factor = 70% (per permittee's application);

PM₁₀ emissions factor for core wash = 0.38 lb PE/gallon of wash (Refcobar 7502 as applied emissions factor);

Transfer efficiency = 70% (per permittee's application).

g) Miscellaneous Requirements

(1) None.



8. K002, Fittings painting operation

Operations, Property and/or Equipment Description:

Fittings painting operation employing airless coating with a booth equipped with a dry particulate filter with a maximum coating throughput of 18.6 gallons/hr, and a synthetic minor restriction of 3,000 gallons of epoxy coating/rolling, 12-month period, 6,000 gallons of water based coating/rolling, 12-month period, and 500 gallons of cleanup material/rolling, 12-month period.

This unit was installed in 1965 so an initial installation permit was not required. The permittee has requested Chapter 31 modification to allow for larger metal products and has requested federally-enforceable restrictions on PM₁₀ for this unit to ensure continued compliance with facility-wide emission rates protective of the National Ambient Air Quality Standards (NAAQS) and federally-enforceable restrictions on VOC emissions to avoid a major modification. (Supersedes PTI 06-07432 issued 7/8/2009)

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(D) (to avoid major modification for VOC and to protect NAAQS for PM ₁₀)	<p>Volatile organic compound (VOC) emissions shall not exceed 7.68 tons per rolling, 12-month period, from coating and cleanup material combined.</p> <p>PE/PM₁₀ emissions shall not exceed 0.02 ton per rolling, 12-month period.</p>
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	<p>The VOC emissions limitation established pursuant to this rule is equivalent to the emissions limitation established pursuant to OAC rule 3745-31-05(D).</p> <p>Install a dry particulate filter for the control of PE/PM₁₀ with a minimum of 90% capture efficiency and 99.87% control efficiency.</p> <p>See b)(2)a. below.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements of OAC rule 3745-31-05(A)(3) do not apply to the VOC and PE/PM ₁₀ emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in b)(1)a. above. See b)(2)b. below.
d.	OAC rule 3745-21-09(U)(1)(d)	The VOC content of the coatings employed shall not exceed a daily volume-weighted average of 3.5 pounds per gallon, as applied, excluding water and exempt solvents for the coatings dried at temperatures not to exceed 200 degrees Fahrenheit.
e.	OAC rules 3745-17-11(B)(1) and (C) and 3745-17-07(A)	See b)(2)c. below.
f.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)d., c)(2), d)(10)-(16) and e)(5) below.

(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- c. Pursuant to OAC rule 3745-17-11(A)(1)(j), OAC rule 3745-17-11 does not apply to this source because an airless application method is used. Pursuant to OAC rule 3745-17-07(A)(3)(j), the visible particulate emission (PE) limitations in OAC rule 3745-17-07(A)(1) do not apply to a source that is not subject to a mass emission limitation in OAC rule 3745-17-11.

- d. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.



c) Operational Restrictions

- (1) The permittee has requested a federally enforceable limitation on the maximum annual throughput of coating and cleanup for this emissions unit in order to restrict the federally enforceable potential to emit to avoid major modification status for VOC. The maximum annual throughput for this emissions unit shall not exceed 3,000 gallons of epoxy coating, 5,000 gallons of water based coating, and 500 gallons of clean-up, based upon a rolling, 12-month summation of the throughput.

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

Month(s)	Maximum Allowable Cumulative Throughput of Epoxy Coating (gallons)	Maximum Allowable Cumulative Throughput of Water Based Coating (gallons)	Maximum Allowable Cumulative Throughput of Cleanup Material (gallons)
1	250	500	42
1-2	500	1,000	83
1-3	750	1,500	125
1-4	1,000	2,000	167
1-5	1,250	2,500	208
1-6	1,500	3,000	250
1-7	1,750	3,500	292
1-8	2,000	4,000	333
1-9	2,250	4,500	375
1-10	2,500	5,000	417
1-11	2,750	5,500	458
1-12	3,000	6,000	500

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))



- (2) The permittee shall install and operate a dry particulate filter for the control of PE/PM₁₀ whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C), 40 CFR Part 64)

- (3) In the event the dry particulate filter is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for the coating line:

- a. the name, identification number, and type (i.e., water-based or epoxy) of each coating applied;
- b. the volume, in gallons, of each coating applied;
- c. the VOC content, in pounds per gallon, of each coating, as applied (including any additives or thinners, if applicable);
- d. the VOC emissions from coating (VOC), in tons of VOC per month calculated as follows:

$$VOC \left(\frac{\text{tons}}{\text{month}} \right) = \frac{\sum_{i=1}^n (G \times C)}{2,000 \frac{\text{lbs}}{\text{ton}}}$$

Where:

G = volume of each coating applied, in gallons, as recorded in d)(1)b. above;

C = VOC content of each coating, as applied, in pounds per gallon, as recorded in d)(1)c. above; and,

n = total number of coatings employed during the month.

- e. the solids content, in pounds per gallon, of each coating, as applied (including any additives or thinners, if applicable);
- f. the particulate emissions from coating (PE/PM₁₀), in tons of PE/PM₁₀ per month calculated as follows:



$$PE/PM10 \left(\frac{tons}{month} \right) = \frac{\sum_{i=1}^n (G \times C \times T \times (1 - Capture))}{2,000 \frac{lbs}{ton}} + \frac{\sum_{i=1}^n (G \times C \times T \times (Capture) \times (1 - Control))}{2,000 \frac{lbs}{ton}}$$

Where:

G = volume of each coating applied, in gallons, as recorded in d)(3)b. above;

C = solids content of each coating, as applied, in pounds per gallon, as recorded in d)(3)c. above;

T = transfer efficiency (50% as submitted in permittee's application)

Capture = capture efficiency (90% as submitted in permittee's application)

Control = control efficiency (99.87% as submitted in permittee's application)

n = total number of coatings employed during the month.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permittee shall collect and record the following information for each month for all cleanup material employed in this emissions unit:
 - a. The name and identification of each cleanup material;
 - b. The VOC content, as applied, in pounds per gallon for each cleanup material;
 - c. The amount of each cleanup material employed, in gallons;
 - d. The monthly VOC emissions, as applied, from cleanup material, in pounds,
 - e. if cleanup materials are collected for off-site disposal and/or recovery, the following records shall be maintained if a credit is to be applied to the monthly VOC emissions:
 - i. the amount of cleanup material recovered during the month* for off-site disposal and/or recovery, in gallons (or pounds, if records of recovered cleanup material is maintained by weight and VOC content in percent by weight);
 - ii. the VOC content of the recovered cleanup material shall be based on the lowest VOC content of any cleanup material collected, in pounds per gallon (or percent by weight); or it may be based upon a laboratory analyses provided by the facility to which the waste solvent is shipped;



- iii. the date the recovered cleanup material was shipped, the amount shipped (minus the container), and the name and address of the receiving, disposal, and/or recovery facility; and
- f. the total monthly VOC emission from cleanup operations, in tons.

* A daily log may be required for recovered waste cleanup solvents, where a record of the monthly total volume or weight of the collected material cannot be accurately maintained. This amount shall be adjusted if the volume or weight shipped is less than the sum of the monthly recovered solvent added to the container.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall maintain monthly records of the following:
 - a. the total monthly emissions of VOC (calculated by summing (d)(1)d. and d)(2)f.) from this emissions unit;
 - b. the total monthly emissions of PE/PM₁₀ (as recorded in d)(1)f. above) from this emissions unit;
 - c. during the first 12 calendar months of operation, the permittee shall record the following:
 - i. the cumulative throughput of epoxy coating, in gallons, for each calendar month;
 - ii. the cumulative throughput of water based coating, in gallons, for each calendar month;
 - iii. the cumulative throughput of cleanup material, in gallons, for each calendar month;
 - iv. the cumulative emissions of VOC for each calendar month; and
 - v. the cumulative emissions of PE/PM₁₀ for each calendar month.
 - d. beginning after the first 12 calendar months of operation, the permittee shall record the following from this emissions unit:
 - i. the rolling, 12-month summation of the throughput of epoxy coating, in gallons;
 - ii. the rolling, 12-month summation of the throughput of water based coating, in gallons;
 - iii. the rolling, 12-month summation of the throughput of cleanup material, in gallons;
 - iv. the rolling, 12-month summation of VOC emissions; and



- v. the rolling, 12-month summation of PE/PM₁₀ from this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (4) The permittee, having chosen to demonstrate compliance by means of compliant coatings, shall collect and record the following information each day for the coating line:

- a. the name and identification number of each coating, as applied; and
- b. the mass of VOC per volume of each coating, in pounds per gallon, excluding water and exempt solvents, as applied, calculated as follows for C_{VOC,2}:

$$C_{VOC,2} = (D_C)(W_{VOC}) / V_S + V_{VOC}$$

Where:

D_C = the density of coating, in pounds of coating per gallon of coating;

$$W_{VOC} = W_{VM} - W_W - W_{ES};$$

V_S = volume fraction of solids in coating, in gallons of solids per gallon of coating;

$$V_{VOC} = V_{VM} - V_W - V_{ES};$$

W_{VM} = weight fraction of volatile matter in coating, in pound of volatile matter per pound of coating;

W_W = weight fraction of water in coating, in pound of water per pound of coating;

W_{ES} = weight fraction of exempt solvent in coating, in pound of exempt solvent per pound of coating;

V_{VM} = volume fraction of volatile matter in coating, in gallon of volatile matter per gallon of coating;

V_W = volume fraction of water in coating, in gallon of water per gallon of coating; and

V_{ES} = volume fraction of exempt solvent in coating, in gallon of exempt solvent per gallon of coating.

If the permittee mixes compliant coatings, it is not necessary to record the VOC content of the resulting mixture.

(Authority for term: OAC rule 3745-31-09(U)(1), OAC rule 3745-77-07(C))

- (5) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be



maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (6) The permittee shall conduct periodic inspections of the dry particulate filter system to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (7) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter system while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (8) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:
- a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))



- (9) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit was in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (10) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the dry particulate filters controlling this emissions unit are the pressure differential across the dry particulate filters, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure differential shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (11) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter system and the paint booth and perform any needed preventative maintenance and/or repairs to ensure that the emissions unit and its associated control and monitoring equipment are operated in accordance with the manufacturer's recommendations and in accordance with the approved CAM Plan. This inspection may be performed and recorded concurrently with the inspection required in d)(7) above.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (12) The permittee shall perform daily checks of the dry particulate filter material condition when the emissions unit is in operation, and shall record the condition of the filters and any action resulting from the inspection.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;



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

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (14) The permittee shall perform visible emissions observation in accordance with USEPA Method 22 once per week from the stack serving this emissions unit. The permittee shall maintain records of the completed Method 22 forms in accordance with d)(16) below.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (15) The permittee shall properly install, operate, and maintain equipment to monitor the pressure differential, in inches of water, across the dry particulate filter system when the controlled emissions unit is in operation. The permittee shall record the pressure differential across the dry particulate filter system on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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



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

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

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.1 to 0.6 inches of water.

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (16) The permittee shall maintain the records of the inspections, monitoring data, and testing data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)



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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

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

- a. any exceedance of the annual epoxy coating, water based coating, and cleanup usage limitations;
- b. all exceedances of the rolling, 12-month limitation on:
 - i. the throughput of epoxy coating for this emissions unit;
 - ii. the throughput of water based coating for this emissions unit;
 - iii. the throughput of cleanup for this emissions unit;
- c. for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative throughput of:
 - i. epoxy coating for this emissions unit;
 - ii. water based coating for this emissions unit;
 - iii. cleanup for this emissions unit;
- d. all exceedances of the rolling, 12-month limitation of VOC;
- e. all exceedances of the rolling, 12-month limitation of PE/PM10.

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly reports that identify:

- a. any daily record showing that the dry particulate filter was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation.



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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (4) The permittee shall notify the Director (appropriate District Office or local air agency) in writing of each daily record showing the application of a coating with greater than 3.5 pounds VOC per gallon, excluding water and exempt solvents. The notification shall include a copy of each such record and it shall be sent to the appropriate District Office or local air agency within 30 days following the end of the calendar month during which the non-compliant coating was applied.

(Authority for term: OAC rule 3745-31-09(U)(1), OAC rule 3745-77-07(C))

- (5) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
- a. each period of time when the pressure differential across the dry particulate filter system was outside of the acceptable range;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
 - d. an identification of each incident of deviation described in (5)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. an identification of each incident of deviation described in (5)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

f) Testing Requirements

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

VOC emissions shall not exceed 7.68 tons per rolling, 12-month period, from coating and cleanup material combined.



Applicable Compliance Method:

Compliance with this emissions limitations shall be determined based on the recordkeeping specified in d)(1)a.-d. and d)(3) above.

b. Emission Limitation:

PE/PM₁₀ emissions shall not exceed 0.02 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the recordkeeping specified in d)(1)a., d)(1)b., d)(1)e. and d)(1)f. above.

c. Emission Limitation:

Install a dry particulate filter for the control of PE/PM₁₀ with a minimum of 90% capture efficiency and 99.87% control efficiency.

Applicable Compliance Method:

Compliance with this emissions limitation shall be demonstrated by the manufacturer's guaranteed specifications.

d. Emission Limitation:

The VOC content of the coatings employed shall not exceed a daily volume-weighted average of 3.5 pounds per gallon, as applied, excluding water and exempt solvents for the coatings dried at temperatures not to exceed 200 degrees Fahrenheit.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the recordkeeping specified in d)(4).

(2) Formulation data or USEPA Method 24 shall be used to determine the volatile compound contents of the coatings.



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g) Miscellaneous Requirements

Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum increase in annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))



9. K006, Pipe painting operation - small line

Operations, Property and/or Equipment Description:

Pipe painting operation with a maximum hourly throughput of 171.89 gallons/hr controlled by a fabric filter with 100% capture and 99.87% control (70% transfer efficiency); this unit was installed in 1983 without an installation permit so this permit imposes BAT limits as well as the federally-enforceable emissions limitations on PM10 requested by the permittee to ensure compliance with facility-wide emission rates protective of the National Ambient Air Quality Standards (NAAQS).

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(D) (Synthetic minor to ensure compliance with the NAAQS)	PM ₁₀ emissions from the stack shall not exceed 1.21 tons based on a rolling, 12-month summation.
b.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack shall not exceed 0.79 pound per hour. No visible particulate emissions shall be emitted from the stack serving this emissions unit. The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(C) and 3745-21-09(U)(1)(d).
c.	OAC rule 3745-21-09(U)(1)(d)	Volatile compound emissions per gallon of coating shall not exceed 3.5 pounds, excluding water and exempt solvents, for coatings dried at temperatures not exceeding 200 degrees Fahrenheit.
d.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See b)(2)a., c)(1), d)(3)-(9) and e)(5) below.

(2) Additional Terms and Conditions

- a. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

c) Operational Restrictions

- (1) The permittee shall operate the dry filtration system whenever this emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C), 40 CFR Part 64)

- (2) The maximum coating usage for this emissions unit shall not exceed 243,066 gallons, based upon a rolling, 12-month summation of the coating usage figures. 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 coating usage, upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- (2) The permittee shall collect and record the following information each month for the coating line:

- a. The name and identification number of each coating employed;
- b. the solids content, in pounds per gallon, of each coating employed;
- c. the VOC content of each coating (excluding water and exempt solvents), as applied;
- d. the total volume, in gallons, of each coating employed;
- e. the rolling, 12-month summation of the coating usage; and



- f. the total solids usage [the sum of (b. times d.) for all coatings], in tons.

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 coatings usage rate upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the dry particulate filters controlling this emissions unit are the pressure differential across the dry particulate filters, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure differential shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter system and the paint booth and perform any needed preventative maintenance and/or repairs to ensure that the emissions unit and its associated control and monitoring equipment are operated in accordance with the manufacturer's recommendations and in accordance with the approved CAM Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (5) The permittee shall perform daily checks of the dry particulate filter material condition when the emissions unit is in operation, and shall record the condition of the filters and any action resulting from the inspection.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and



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

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (7) The permittee shall perform visible emissions observation in accordance with USEPA Method 22 once per week from the stack serving this emissions unit. The permittee shall maintain records of the completed Method 22 forms in accordance with d)(9) below.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (8) The permittee shall properly install, operate, and maintain equipment to monitor the pressure differential, in inches of water, across the dry particulate filter system when the controlled emissions unit is in operation. The permittee shall record the pressure differential across the dry particulate filter system on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

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

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



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

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.1 to 0.6 inches of water.

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (9) The permittee shall maintain the records of the inspections, monitoring data, and testing data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))



- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- (3) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-21-09(U)(1)(d), OAC rule 3745-77-07(C))

- (4) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for PM₁₀ specified in b)(1). The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (5) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation on coating usage. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (6) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

- a. each period of time when the pressure differential across the dry particulate filter system was outside of the acceptable range;
- b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
- c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in (6)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in (6)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)



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:

PM₁₀ emissions from the stack shall not exceed 1.21 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the rolling, 12-month emissions limit shall be determined in accordance with the following method:

$$E = (M) * (1-TE) * (1-CE)$$

where:

E = PM₁₀ emission rate (tons per month);

M = total coating solids usage rate (tons per month);

TE = transfer efficiency of coating equipment (ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used, 0.70 per application); and

CE = control efficiency of the control equipment (0.9987 for panel filters).

Compliance with the rolling, 12-month emission limit shall be determined by adding the current month to the previous 11 calendar months totals.

b. Emission Limitation:

PE from the stack shall not exceed 0.79 pound per hour.

Applicable Compliance Method:

Compliance with the hourly PE rate of 0.79 pound per hour shall be determined in accordance with the following method:

$$E = (M) * (1-TE) * (1-CE)$$

Where:

E = PE/PM₁₀ emission rate (in pounds per hour);

M = total coating solids usage rate (in pounds per hour);



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TE = transfer efficiency of coating equipment (ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used, 0.70 per application); and

CE = control efficiency of the control equipment (0.9987 for panel filters).

If required, particulate emissions 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.

Compliance with the tons per year emissions limitation for PE shall be determined in accordance with the following method:

$$E = (M) * (1-TE) * (1-CE)$$

Where:

E = PE rate (tons per month);

M = total coating solids usage rate (tons per month);

TE = transfer efficiency of coating equipment (ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used, 0.70 per application); and

CE = control efficiency of the control equipment (0.9987 for panel filters).

c. Emission Limitation:

No visible particulate emissions shall be emitted from the stack serving this emissions unit.

Applicable Compliance Method:

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

d. Emission Limitation:

Volatile compound emissions per gallon of coating shall not exceed 3.5 pounds, excluding water and exempt solvents, for coatings dried at temperatures not exceeding 200 degrees Fahrenheit.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(2). Formulation data or USEPA Method 24 shall be used to determine the volatile compound contents of the coatings.



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g) Miscellaneous Requirements

(1) None.



10. K021, Temporary zinc arc coating

Operations, Property and/or Equipment Description:

34.8 pound per hour temporary zinc arc coating process for the application of sprayed zinc coating to metal poles operated inside an enclosure with an 80% capture efficiency and controlled with a baghouse with a 99.0% 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), as effective 11/30/01	<p>Particulate emissions (PE), emissions of particulate matter of 10 microns or less (PM₁₀) and emissions of particulate matter of 2.5 microns or less (PM_{2.5}) from the stack shall not exceed 0.084 pound per hour and 0.37 ton per year.</p> <p>Fugitive PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 9.15 tons per year.</p> <p>Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.</p> <p>Best available control measures that are sufficient to eliminate visible emissions of fugitive dust.</p> <p>The requirements of this rule include compliance with OAC rule 3745-17-11(C).</p> <p>See b)(2)a.-c. below.</p>
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)e. below.
c.	OAC rule 3745-17-11(C)	See c)(1) and (2) below.
d.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)f. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)g., c)(1), d)(7)-(10) and e)(3) below.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 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 regulation for NAAQS pollutant emissions 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 revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

b. The permittee shall employ best available control measures for the above-identified spraying operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee shall ensure that the enclosure and baghouse controlling the above-mentioned spraying operation are maintained and achieve at least 80% capture of fugitive particulate. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

c. For each spraying operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the weekly 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 spraying operations until further observation confirms that use of the control measure(s) is unnecessary.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

d. 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 rule 3745-31-05.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))



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- e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install P0112628 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. Use of spray equipment with a 70% transfer efficiency;
- ii. Controlled with an enclosure with a 80% capture efficiency and baghouse with a 99% control efficiency installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s); and
- iii. PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 9.52 tons per year.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- f. This facility is located in Coshocton County, which is not identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions from this emissions unit are exempt from the fugitive dust control requirements and visible emission limitation established in OAC rules 3745-17-08(B) and 3745-17-07(B), respectively.

- g. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

c) Operational Restrictions

- (1) The permittee shall install and operate an enclosure and baghouse for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the enclosure and baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C), 40 CFR Part 64)

- (2) In the event the enclosure and baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the enclosure and baghouse, along with



documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA district office or local air agency upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

- (2) The permittee shall conduct periodic inspections of the enclosure and baghouse to determine whether they are operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

- (3) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the enclosure and baghouse while the emissions unit is shut down and perform any needed maintenance and repair to ensure that they are operated in accordance with the manufacturer's recommendations.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

- (4) The permittee shall document each inspection (periodic and annual) of the enclosure and baghouse and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA district office or local air agency upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

- (5) The permittee shall maintain records that document any time periods when the enclosure and baghouse were not in service when the emissions unit was in operation, as well as, a record of all operations during which the enclosure and baghouse were not operated according to the manufacturer's recommendations with any documented



modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

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

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

- (7) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the pressure drop across the baghouse, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure drop shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution



control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

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

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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

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

- a. the date and time the deviation began;



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

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

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

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 6 inches of water.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate

emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)



- (10) The permittee shall maintain the records of the inspections and monitoring data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

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

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

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-11(C), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

- a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
- b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit which were not representative of normal operations of the emissions unit;
- c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in (3)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and



- e. an identification of each incident of deviation described in (3)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitations:

PE and emissions of PM₁₀ and PM_{2.5} from the stack shall not exceed 0.084 pound per hour and 0.37 ton per year.

Applicable Compliance Method:

Compliance with the pound per hour emissions limitation is demonstrated by the following calculation based upon and the information presented in the permittee's application:

$$\begin{aligned} \text{PE/PM}_{10}/\text{PM}_{2.5} \text{ (lb/hr)} &= \text{maximum zinc coating sprayed (lbs/hr)} \times \% \text{ transfer} \\ &\text{efficiency} \times \% \text{ capture efficiency} \times \% \text{ control efficiency} \\ &= 34.8 \text{ lbs/hr} \times (1-70\%) \times 80\% \times (1-0.99) \\ &= 0.084 \text{ lb/hr} \end{aligned}$$

Where:

Maximum zinc arc spray rate = 34.8 pounds/hr;

Transfer efficiency = 70%;

Capture efficiency of enclosure = 80%; and

Control efficiency of baghouse = 99%.

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". If required, PM₁₀ and PM_{2.5} emissions shall be determined according to test Methods 201/201A and 202 as set forth in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior written approval from Ohio EPA, Southeast District Office.

Compliance with the annual emissions limitation is based upon the following calculation:

$$\text{PE/PM}_{10}/\text{PM}_{2.5} \text{ (ton/yr)} = 0.084 \text{ lbs/hr} \times 8,760 \text{ hours/yr} \times 1 \text{ ton}/2,000 \text{ pounds}$$



= 0.37 ton/yr

b. Emissions Limitation:

Fugitive PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 9.15 tons per year.

Applicable Compliance Method:

Compliance with the annual fugitive emissions limitation is demonstrated by the following calculation based upon and the information presented in the permittee's application:

$$\begin{aligned} \text{Fugitive PE/PM}_{10}\text{/PM}_{2.5} \text{ (tons/yr)} &= [(\text{maximum zinc coating sprayed (lbs/hr)} \times \\ &\text{\% transfer efficiency} \times \text{\% not captured}) + (\text{maximum zinc wire melted (ton/hr)} \times \\ &\text{wire melting emissions factor (lb/ton)})] \times 8,760 \text{ hours per year} \times 1 \text{ ton/2,000 lbs}] \\ &= [(34.8 \text{ lbs/hr} \times (1-0.70) \times (1-0.80)) + (0.0174 \text{ ton/hr} \times 0.005 \text{ lb/ton})] \times \\ &8,760 \text{ hrs/yr} \times 1 \text{ ton/2,000 lbs} \\ &= 9.15 \text{ tons/yr} \end{aligned}$$

Where:

Maximum zinc arc spray rate = 34.8 pounds/hr;

Transfer efficiency = 70%;

Capture efficiency of enclosure = 80%;

Maximum zinc wire melted = 0.0174 ton/hr; and

Zinc wire melting emissions factor = 0.005 lb PE/ton (WebFire for SCC 3-04-008-70).

c. Emissions Limitation:

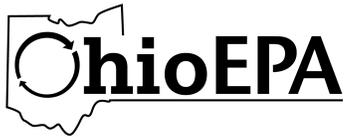
Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

- (1) None.



11. K024, Protecto 401 ID Lining

Operations, Property and/or Equipment Description:

Protecto 401 ID Lining - metal coating line employing slinger head application and Protecto 401; with a federally enforceable throughput restriction of 14,000 gallons of coating per rolling, 12-month period and 250 gallons of clean-up per rolling, 12-month period - located on the property of McWane Poles

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) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Volatile organic compound (VOC) emissions shall not exceed 7.21 tons per rolling, 12-month period, from coating and clean-up combined.
b.	OAC rule 3745-31-05(A)(3), as effective June 30, 2008	The emissions limitation established pursuant to this rule is equivalent to the emissions limitation established pursuant to OAC rule 3745-31-05(D). See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements of OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in b)(1)a. above. See b)(2)b. below.
d.	OAC rule 3745-21-09(U)(1)(d)	The VOC content of the coatings employed shall not exceed a daily volume-weighted average of 3.5 pounds per gallon, as applied, excluding water and exempt solvents for the coatings dried at temperatures not to exceed 200 degrees Fahrenheit.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rules 3745-17-11(B)(1) and (C) and 3745-17-07(A)	See b)(2)c. below.

(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- c. Pursuant to OAC rule 3745-17-11(A)(1)(j), OAC rule 3745-17-11 does not apply to this source because a slinger head (airless) application method is used. Pursuant to OAC rule 3745-17-07(A)(3)(j), the visible particulate emission (PE) limitations in OAC rule 3745-17-07(A)(1) do not apply to a source that is not subject to a mass emission limitation in OAC rule 3745-17-11.

c) Operational Restrictions

- (1) The permittee has requested a federally enforceable limitation on the maximum annual throughput of coating and cleanup for this emissions unit in order to restrict the federally enforceable potential to emit to avoid major modification status for VOC. The maximum annual throughput for this emissions unit shall not exceed 14,000 gallons of coating and 250 gallons of clean-up, based upon a rolling, 12-month summation of the throughput.

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

Month(s)	Maximum Allowable Cumulative Throughput of Coating (gallons)	Maximum Allowable Cumulative Throughput of Clean-up (gallons)
1	1,167	21
1-2	2,333	42
1-3	3,500	63
1-4	4,667	84



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Month(s)	Maximum Allowable Cumulative Throughput of Coating (gallons)	Maximum Allowable Cumulative Throughput of Clean-up (gallons)
1-5	5,833	105
1-6	7,000	126
1-7	8,167	147
1-8	9,333	168
1-9	10,500	189
1-10	11,667	210
1-11	12,833	231
1-12	14,000	250

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

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

(1) The permittee shall collect and record the following information each month for the coating line:

- a. the name, identification number and type (for example, clear coat subject to OAC rule 3745-21-09(U)(1)(a)) of each coating applied;
- b. the volume, in gallons, of each coating applied;
- c. the VOC content, in pounds per gallon, of each coating, as applied (including any additives or thinners, if applicable);
- d. the VOC emissions from coating (VOC), in tons of VOC per month calculated as follows:

$$VOC \left(\frac{\text{tons}}{\text{month}} \right) = \frac{\sum_{i=1}^n (G \times C)}{2,000 \frac{\text{lbs}}{\text{ton}}}$$

Where:



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G = volume of each coating applied, in gallons, as recorded in d)(1)b. above;

C = VOC content of each coating, as applied, in pounds per gallon, as recorded in d)(1)c. above; and,

n = total number of coatings employed during the month.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permittee shall collect and record the following information for each month for all cleanup material employed in this emissions unit:
- a. The name and identification of each cleanup material;
 - b. The VOC content, as applied, in pounds per gallon for each cleanup material;
 - c. The amount of each cleanup material employed, in gallons;
 - d. The monthly VOC emissions, as applied, from cleanup material, in pounds,
 - e. if cleanup materials are collected for off-site disposal and/or recovery, the following records shall be maintained if a credit is to be applied to the monthly VOC emissions:
 - i. the amount of cleanup material recovered during the month* for off-site disposal and/or recovery, in gallons (or pounds, if records of recovered cleanup material is maintained by weight and VOC content in percent by weight);
 - ii. the VOC content of the recovered cleanup material shall be based on the lowest VOC content of any cleanup material collected, in pounds per gallon (or percent by weight); or it may be based upon a laboratory analyses provided by the facility to which the waste solvent is shipped;
 - iii. the date the recovered cleanup material was shipped, the amount shipped (minus the container), and the name and address of the receiving, disposal, and/or recovery facility; and
 - f. the total monthly VOC emission from cleanup operations, in tons.

* A daily log may be required for recovered waste cleanup solvents, where a record of the monthly total volume or weight of the collected material cannot be accurately maintained. This amount shall be adjusted if the volume or weight shipped is less than the sum of the monthly recovered solvent added to the container.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))



- (3) The permittee shall maintain monthly records of the following:
 - a. during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of coating, in gallons, for each calendar month;
 - b. during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of cleanup, in gallons, for each calendar month;
 - c. during the first 12 calendar months of operation, the permittee shall record the cumulative emissions of VOC for each calendar month for this emissions unit;
 - d. the total monthly emissions of VOC (calculated by summing (d)(1)d. and d)(2)f.) from this emissions unit;
 - e. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of coating, in gallons;
 - f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of cleanup, in gallons;
 - g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of VOC emissions from this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (4) The permittee must collect and record the following information each day for the coating line to demonstrate compliance with the coating VOC content limitations by means of a daily volume-weighted average VOC content:
 - a. the name and identification number of each coating, as applied;
 - b. the mass of VOC per volume of coating (excluding water and exempt solvents) and the number of gallons (excluding water and exempt solvents) of each coating, as applied; and,
 - c. the daily volume-weighted average VOC content of all coatings, as applied calculated in accordance with the equation specified in paragraph (B)(9) of OAC rule 3745-21-10 for $C_{VOC,2}$, as follows:

$$(C_{voc, 2})_A = \frac{\sum_{i=1}^n C_{voc, 2i} LC_i (V_{si} + V_{voci})}{\sum_{i=1}^n LC_i (V_{si} + V_{voci})}$$

Where:

$(C_{VOC,2})_A$ is the daily volume-weighted average VOC content of all coatings, as applied; and

$C_{VOC,2}$ is the VOC content of pounds of VOC per gallon of coating excluding water and exempt solvents calculated as follows:



$$C_{VOC,2} = (D_c)(W_{VOC}) / V_s + V_{VOC};$$

D_c = density of coating, in pounds of coating per gallon of coating;

$$W_{VOC} = W_{VM} - W_W - W_{ES}$$

V_s = the volume fraction of solids in coating, in gallons of solids per gallon of coating;

$$V_{VOC} = V_{VM} - V_W - V_{ES};$$

W_{VM} = weight fraction of volatile matter in coating, in pound of volatile matter per pound of coating;

W_W = weight fraction of exempt solvent in coating, in pound of exempt solvent per pound of coating;

V_{VM} = volume fraction of volatile matter in coating, in gallon of volatile matter per gallon of coating;

V_W = volume fraction of water in coating, in gallon of water of coating;

V_{ES} = volume fraction of exempt solvent in coating, in gallon of exempt solvent per gallon of coating;

A = subscript denoting that the indicated VOC content is a weighted average of the coatings employed during time period “ t ”;

L_c = liquid volume of coating employed during time period “ t ”, in gallons of coating;

M_c = mass of coating employed during the time period “ t ”, in pounds of coating,

i = subscript denoting a specific coating employed during time period “ t ”;

n = total number of coatings employed during time period “ t ”; and,

t = time period specified for the weighted average VOC content is per day and not included in calculation.

(Authority for term: OAC rule 3745-21-09(U)(1), OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))



- (2) The permittee shall notify the Ohio EPA, Southeast District Office in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-21-09(U)(1), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. any exceedance of the annual coating and cleanup usage limitations;
 - b. all exceedances of the rolling, 12-month limitation on the throughput of coating for this emissions unit;
 - c. for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative throughput of coating for this emissions unit;
 - d. all exceedances of the rolling, 12-month limitation on the throughput of cleanup for this emissions unit;
 - e. for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative throughput of cleanup for this emissions unit; and,
 - f. all exceedances of the rolling, 12-month limitation of VOC.

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

f) Testing Requirements

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

- a. Emission Limitation:

VOC emissions shall not exceed 7.21 tons per rolling, 12-month summation.

Applicable Compliance Method:

Compliance with this emissions limitations shall be determined based on the recordkeeping specified in d)(1) through d)(3) above.



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b. Emission Limitation:

Coatings applied in the coating operations shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents, for coatings dried at temperatures not exceeding 200 degrees Fahrenheit.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(4). Formulation data or USEPA Method 24 shall be used to determine the volatile compound contents of the coatings.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))



12. K025, Protecto Bell and Spigot Coating

Operations, Property and/or Equipment Description:

Protecto bell and spigot coating - metal coating employing brush application and Red 711 and Red 211; with a federally enforceable throughput restriction of 400 gallons per year of coating - located on the property of McWane Poles.

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) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Volatile organic compound (VOC) emissions shall not exceed 0.57 ton per rolling, 12-month period.
b.	OAC rule 3745-31-05(A)(3), as effective June 30, 2008	The emissions limitation established pursuant to this rule is equivalent to the emissions limitation established pursuant to OAC rule 3745-31-05(D). See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements of OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
d.	OAC rule 3745-21-09(U)(1)(d)	The VOC content of the coatings employed shall not exceed a daily volume-weighted average of 3.5 pounds per gallon, as applied, excluding water and exempt solvents for the coatings dried at temperatures not to exceed 200 degrees Fahrenheit.
e.	OAC rules 3745-17-11(B)(1) and (C) and 3745-17-07(A)	See b)(2)c. below.



(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- c. Pursuant to OAC rule 3745-17-11(A)(1)(j), OAC rule 3745-17-11 does not apply to this source because a brush application method is used. Pursuant to OAC rule 3745-17-07(A)(3)(j), the visible particulate emission (PE) limitations in OAC rule 3745-17-07(A)(1) do not apply to a source that is not subject to a mass emission limitation in OAC rule 3745-17-11.

c) Operational Restrictions

- (1) The permittee has requested a federally enforceable limitation on the maximum annual throughput of coating for this emissions unit in order to restrict the federally enforceable potential to emit to avoid major modification status for VOC. The maximum annual throughput for this emissions unit shall not exceed 400 gallons of coating based upon a rolling, 12-month summation of the throughput.

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

Month(s)	Maximum Allowable Cumulative Throughput of Coating (gallons)
1	34
1-2	67
1-3	100
1-4	134
1-5	167
1-6	200
1-7	234
1-8	267



Month(s)	Maximum Allowable Cumulative Throughput of Coating (gallons)
1-9	300
1-10	334
1-11	367
1-12	400

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for the coating line:

- a. the name, identification number and type (for example, clear coat subject to OAC rule 3745-21-09(U)(1)(a)) of each coating applied;
- b. the volume, in gallons, of each coating applied;
- c. the VOC content, in pounds per gallon, of each coating, as applied (including any additives or thinners, if applicable);
- d. the VOC emissions from coating (VOC), in tons of VOC per month calculated as follows:

$$VOC \left(\frac{tons}{month} \right) = \frac{\sum_{i=1}^n (G \times C)}{2,000 \frac{lbs}{ton}}$$

Where:

G = volume of each coating applied, in gallons, as recorded in d)(1)b. above;

C = VOC content of each coating, as applied, in pounds per gallon, as recorded in d)(1)c. above; and,

n = total number of coatings employed during the month.

e. during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of coating, in gallons, for each calendar month;



- f. during the first 12 calendar months of operation, the permittee shall record the cumulative emissions of VOC for each calendar month for this emissions unit;
- g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of coating, in gallons;
- h. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of VOC emissions from this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

(2) The permittee must collect and record the following information each day for the coating line to demonstrate compliance with the coating VOC content limitations by means of a daily volume-weighted average VOC content:

- a. the name and identification number of each coating, as applied;
- b. the mass of VOC per volume of coating (excluding water and exempt solvents) and the number of gallons (excluding water and exempt solvents) of each coating, as applied; and,
- c. the daily volume-weighted average VOC content of all coatings, as applied calculated in accordance with the equation specified in paragraph (B)(9) of OAC rule 3745-21-10 for $C_{VOC,2}$, as follows:

$$(C_{VOC,2})_A = \frac{\sum_{i=1}^n C_{voc,2i} LC_i (V_{si} + V_{voci})}{\sum_{i=1}^n LC_i (V_{si} + V_{voci})}$$

Where:

$(C_{VOC,2})_A$ is the daily volume-weighted average VOC content of all coatings, as applied; and

$C_{VOC,2}$ is the VOC content of pounds of VOC per gallon of coating excluding water and exempt solvents calculated as follows:

$$C_{VOC,2} = (D_c)(W_{VOC}) / V_s + V_{VOC};$$

D_c = density of coating, in pounds of coating per gallon of coating;

$$W_{VOC} = W_{VM} - W_W - W_{ES}$$

V_s = the volume fraction of solids in coating, in gallons of solids per gallon of coating;

$$V_{VOC} = V_{VM} - V_W - V_{ES};$$

W_{VM} = weight fraction of volatile matter in coating, in pound of volatile matter per pound of coating;



W_W = weight fraction of exempt solvent in coating, in pound of exempt solvent per pound of coating;

V_{VM} = volume fraction of volatile matter in coating, in gallon of volatile matter per gallon of coating;

V_W = volume fraction of water in coating, in gallon of water of coating;

V_{ES} = volume fraction of exempt solvent in coating, in gallon of exempt solvent per gallon of coating;

A = subscript denoting that the indicated VOC content is a weighted average of the coatings employed during time period "t";

L_C = liquid volume of coating employed during time period "t", in gallons of coating;

M_C = mass of coating employed during the time period "t", in pounds of coating,

i = subscript denoting a specific coating employed during time period "t";

n = total number of coatings employed during time period "t"; and,

t = time period specified for the weighted average VOC content is per day and not included in calculation.

(Authority for term: OAC rule 3745-31-09(U)(1), OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall notify the Ohio EPA, Southeast District Office in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-31-09(U)(1), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. any exceedance of the annual coating usage limitations;
 - b. all exceedances of the rolling, 12-month limitation on the throughput of coating for this emissions unit;



- c. for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative throughput of coating for this emissions unit; and,
- d. all exceedances of the rolling, 12-month limitation of VOC.

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

f) **Testing Requirements**

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

- a. **Emission Limitation:**

VOC emissions shall not exceed 0.57 ton per rolling, 12-month summation.

Applicable Compliance Method:

Compliance with this emissions limitations shall be determined based on the recordkeeping specified in d)(1) above.

- b. **Emission Limitation:**

Coatings applied in the coating operations shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents, for coatings dried at temperatures not exceeding 200 degrees Fahrenheit.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(2). Formulation data or USEPA Method 24 shall be used to determine the volatile compound contents of the coatings.

g) **Miscellaneous Requirements**

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as



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defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))



13. P020, Annealing oven

Operations, Property and/or Equipment Description:

94.96 MMBtu/hr annealing oven fired with natural gas (uncontrolled); this unit was installed in 1977 without an installation permit so this permit imposes BAT limits as well as the federally-enforceable operating restrictions on natural gas usage requested by the permittee to avoid PSD requirements for CO.

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(D) (Synthetic minor to avoid PSD requirements)	Carbon monoxide (CO) emissions shall not exceed 23.93 tons based on a rolling, 12-month summation.
b.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) shall not exceed 0.72 pound per hour; 2.17 tons per year.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.057 pound per hour; 0.17 ton per year.</p> <p>CO emissions shall not exceed 7.98 pounds per hour.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 0.52 pound per hour; 1.57 tons per year.</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 9.50 pounds per hour; 28.49 tons per year.</p> <p>Visible PE from the stack shall not exceed 5% opacity as a 6-minute average.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(D).
c.	OAC rule 3745-17-11	See b)(2)a. below.
d.	OAC rule 3745-17-07	See b)(2)b. below.
e.	OAC rule 3745-18-06(E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The uncontrolled mass rate of emissions (UMRE) for particulate matter from this emissions unit is less than 10 pounds per hour because the metal pipe charged does not emit particulates. The only source of particulate emissions from this natural gas-fired annealing furnace is from the combustion of natural gas. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii) and OAC rule 3745-17-11(A)(4), Figure II and Table I, respectively, do not apply to this emissions unit.
- b. Since the mass rate of emissions for particulates in OAC rule 3745-17-11 is not applicable, the opacity limits in OAC rule 3745-17-07 are also not applicable.

c) Operational Restrictions

- (1) The maximum natural gas usage shall not exceed 569,760,000 cubic feet (cf) based on a rolling, 12-month summation. 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 natural gas usage upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permittee shall burn only natural gas in this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the total natural gas usage, in cf; and
 - b. the updated 12-month summation of natural gas usage, in cf, calculated by adding the usage information for the current month and the preceding 11 calendar months.



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 natural gas usage rate upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month natural gas usage or CO emissions limitations. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly deviation (excursion) reports which identify each day when a fuel other than natural gas was burned in this emissions unit. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

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:

PE shall not exceed 0.72 pound per hour; 2.17 tons per year.

Applicable Compliance Method:

Compliance with the hourly PE rate of 0.72 pound per hour shall be determined by the one-time calculation of the maximum hourly heat input rate of this unit,



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94.96 million Btu/hr, as provided in the permittee's application, multiplied by the PE factor of 7.6 lbs of PE per million scf of natural gas in AP-42 Section 1.4 Table 1.4-2 (7/1998), multiplied by 1 scf of natural gas/1000 Btu.

If required, particulate emissions 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 written approval from Ohio EPA, Southeast District Office.

Compliance with the tons per year emission limitation for PE shall be demonstrated by multiplying the PE factor of 7.6 lbs of PE per million scf of natural gas in AP-42 Section 1.4 Table 1.4-2 (7/1998), by the actual annual fuel usage in scf, by 1 million scf/1,000,000 cf, then dividing by 2,000 lbs/ton.

b. Emission Limitation:

SO₂ emissions shall not exceed 0.057 pound per hour; 0.17 ton per year.

Applicable Compliance Method:

Compliance with the hourly SO₂ emission rate of 0.057 pound per hour shall be determined by the one-time calculation of the maximum hourly heat input rate of this unit, 94.96 MMBtu/hr, as provided in the permittee's application, multiplied by the SO₂ emission factor of 0.6 lb of SO₂ per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-2 (7/1998), multiplied by 1 scf of natural gas/1000 Btu.

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 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 written approval from Ohio EPA, Southeast District Office.

Compliance with the tons per year emission limitation for SO₂ shall be demonstrated by multiplying the SO₂ emission factor of 0.6 lb of SO₂ per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-2 (7/1998), by the actual annual fuel usage in scf, by 1 mmscf/1,000,000 cf, then dividing by 2,000 lbs/ton.

c. Emission Limitation:

CO emissions shall not exceed 7.98 pounds per hour.

CO emissions shall not exceed 23.93 tons based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the hourly CO emission rate of 7.98 pounds per hour shall be determined by the one-time calculation of the maximum hourly heat input rate of this unit, 94.96 MMBtu/hr, as provided in the permittee's application, multiplied by



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the CO emission factor of 84 lbs of CO per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-1 (7/1998), multiplied by 1 scf of natural gas/1000 Btu.

If required, carbon monoxide emissions shall be determined according to test Methods 1 - 4, and 10 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 written approval from Ohio EPA, Southeast District Office.

Compliance with the rolling, 12-month emission limitation for CO shall be demonstrated by multiplying the CO emission factor of 84 lbs of CO per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-1 (7/1998), by the actual fuel usage per rolling, 12-month period in scf, by 1 mmscf/1,000,000 cf, then dividing by 2,000 lbs/ton.

d. Emission Limitation:

VOC emissions shall not exceed 0.52 pound per hour; 1.57 tons per year.

Applicable Compliance Method:

Compliance with the hourly VOC emission rate of 0.52 pound per hour shall be determined by the one-time calculation of the maximum hourly heat input rate of this unit, 94.96 MMBtu/hr, as provided in the permittee's application, multiplied by the VOC emission factor of 5.5 lbs of VOC per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-2 (7/1998), multiplied by 1 scf of natural gas/1,000 Btu.

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A 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 written approval from Ohio EPA, Southeast District Office.

Compliance with the tons per year emission limitation for VOC shall be demonstrated by multiplying the VOC emission factor of 5.5 lbs of VOC per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-2 (7/1998), by the actual annual fuel usage in scf, by 1 mmscf/1,000,000 cf, then dividing by 2,000 lbs/ton.

e. Emission Limitation:

NO_x emissions shall not exceed 9.50 pounds per hour; 28.49 tons per year.

Applicable Compliance Method:

Compliance with the hourly NO_x emission rate of 9.50 pounds per hour shall be determined by the one-time calculation of the maximum hourly heat input rate of this unit, 94.96 MMBtu/hr, as provided in the permittee's application, multiplied by the NO_x emission factor of 100 lbs of NO_x per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-1 (7/1998), multiplied by 1 scf of natural gas/1,000 Btu.



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If required, nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 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 written approval from Ohio EPA, Southeast District Office.

Compliance with the tons per year emission limitation for NO_x shall be demonstrated by multiplying the NO_x emission factor of 100 lbs of NO_x per mmscf of natural gas in AP-42 Section 1.4 Table 1.4-1 (7/1998), by the actual annual fuel usage in scf, by 1 mmscf/1,000,000 cf, then dividing by 2,000 lbs/ton.

f. Emission Limitation:

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

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.



14. P033, Cupola hot blast

Operations, Property and/or Equipment Description:

20.25 MMBtu/hr cupola hot blast furnace 282.D6 (uncontrolled)

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 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/MMBtu of actual heat input.
b.	OAC rule 3745-17-07	Visible PE from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall only burn natural gas as fuel in this emissions unit.

(Authority for term: OAC rule 3745-17-10(B)(1), OAC rule 3745-17-07, OAC rule 3745-77-07)

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(Authority for term: OAC rule 3745-17-10(B)(1), OAC rule 3745-17-07, OAC rule 3745-77-07)



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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(Authority for term: OAC rule 3745-17-10(B)(1), OAC rule 3745-17-07, OAC rule 3745-77-07)

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 shall not exceed 0.020 lb/MMBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon multiplying the maximum hourly fuel flow rate (mmscf/hr) by the AP-42 particulate emission factor (1.9 lbs of particulate emissions per mmscf) and dividing the product by the maximum heat input (mmBtu/hr).

b. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

- (1) None.



15. P034, Shell core machine number 4

Operations, Property and/or Equipment Description:

3.85 ton per hour uncontrolled core making machine processing resin-coated sand and equipped with a 3.0 million BTU/hour natural gas-fired process heater; maximum throughput rate of 5,333 tons of resin-coated sand per rolling, 12-month period; federally enforceable restrictions to limit potential VOC emissions; (uncontrolled)

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) d)(3)-(5) and e)(4)-(5)

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)	<p>Volatile organic compound (VOC) emissions shall not exceed 1.07 pounds per hour.</p> <p>Particulate emissions (PE) shall not exceed 0.44 pound per hour.</p> <p>Emissions of particulate matter of 10 microns or less (PM₁₀) shall not exceed 0.39 pound per hour.</p> <p>For each building or structure housing any emissions source, the permittee shall not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.</p> <p>The requirements of this rule include compliance with OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(D) (Synthetic minor to restrict federally enforceable potential to emit of this emissions unit to accommodate	<p>VOC emissions shall not exceed 2.17 tons per rolling, 12-month period.</p> <p>PE shall not exceed 0.48 ton per rolling,</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	future projects)	12-month period. PM ₁₀ emissions shall not exceed 0.44 ton per rolling, 12-month period. See c)(1) below.
c.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)a. below.
d.	40 CFR Part 63, Subpart ZZZZZ (40 CFR 63.10880 – 10906) [In accordance with 40 CFR 63.10880 (a), this facility is classified as an existing large iron and steel foundry that is an area source of HAPs that commenced construction or reconstruction before September 17, 2007 with an annual metal melt production rate of 20,000 tons or greater.]	See c)(2) and d)(6) below.
e.	40 CFR 63.1-15 (40 CFR 63.7760)	Table 3 to Subpart ZZZZZ of 40 CFR Part 63 – Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. This facility is located in Coshocton County, which is not identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions from this emissions unit are exempt from the fugitive dust control requirements and visible emission limitation established in OAC rules 3745-17-08(B) and 3745-17-07(B), respectively.

c) Operational Restrictions

(1) The maximum throughput of this emissions unit shall not exceed 5,333 tons of resin-coated sand based on a rolling, 12-month summation. 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 throughput rate upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))



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

63.10886	For each furfuryl alcohol warm box mold or core making line, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.
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(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the total throughput of resin-coated sand (in tons) of this emissions unit;
 - b. the rolling, 12-month summation of throughput of resin-coated sand, in tons (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months);
 - c. the rolling, 12-month summation of throughput of core wash, in gallons (i.e., the throughput for the current month added to the throughput of the previous 11 calendar months);
 - d. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the core wash throughput, in gallons; and.
 - e. the rolling, 12-month summation of the total VOC, PE and PM₁₀ emissions.

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 production rates upon issuance of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible 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;



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

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permit-to-install application for emissions unit(s), F065, F066, and P034 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological



Exposure Indices”; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “X” hours per day and “Y” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: Ammonia

TLV (mg/m³): 17

Maximum Hourly Emission Rate (lbs/hr): 13.89

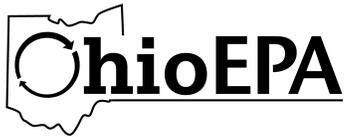
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 126.3

MAGLC (ug/m³): 404.76

The permittee, has demonstrated that emissions of ammonia, from emissions unit F065, F066, and P034, is calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
 - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and



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

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

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

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

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (6) The permittee shall comply with all the applicable monitoring and recordkeeping requirements under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10889(b)(4)	You must keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl
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	alcohol warm box mold or core making line as required by 63.10886. These records must be the MSDS (provided it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.
63.10889(b)(5)	You must keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, MSDS, or other documentation that provides information on the binder or coating materials used.

(Authority for term: 40 CFR Part 63, Subpart ZZZZ, OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the rolling, 12-month resin-coated sand throughput limitation specified in c)(1); and
 - b. all exceedances of the rolling, 12-month VOC, PE and PM₁₀ emissions limitations specified in b)(1)b.

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
 - b. all corrective actions taken to minimize or eliminate the visible emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))



- (4) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

- (5) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

- a. the original model input;
- b. the updated model input;
- c. the reason for the change(s) to the input parameter(s); and
- d. a summary of the results of the updated modeling, including the input changes; and
- e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitations:

VOC emissions shall not exceed 1.07 pounds per hour.

VOC emissions shall not exceed 2.17 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the pounds per hour emissions limitation shall be demonstrated based on the following calculation:

$$\text{VOC (lbs/hr)} = [(\text{VOC emissions factor (lbs VOC/ton of sand)} \times \text{maximum hourly throughput capacity of core machine (tons/hr)}) + (\text{VOC emissions factor for fuel burning (lbs VOC/million BTU)} \times \text{X maximum fuel input capacity of process heater (million BTU/hr)})]$$



$$= [(0.270 \text{ lbs VOC/ton of sand} \times 3.85 \text{ tons sand/hr}) + (0.011 \text{ lbs VOC/million BTU} \times 3.0 \text{ million BTU/hr})]$$

$$= 1.07 \text{ pounds VOC per hour}$$

Where:

0.270 lbs VOC/ton of sand = VOC emissions factor for process (from permittee's application based on vendor-supplied emissions information);

3.85 tons per hour = maximum capacity of core machine;

0.011 lb VOC/million BTU = VOC emissions factor for natural gas fuel burning from AP-42 Table 1.4-2, 7/98 converted from lb/million CF to lb/million BTU; and

3.0 million BTU per hour = maximum natural gas fuel input capacity of process heater

If required, formulation data or USEPA Method 24 may be used to determine the VOC content of the resin-coated sand.

Compliance with the tons per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

$$\text{VOC (tons/rolling, 12-month period)} = \left[\frac{\text{(actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1)b. X VOC emissions factor)} + (0.033 \text{ lb/hr (hourly PTE of process heater)} \times 8,760 \text{ hours/yr}) \right] \times 1 \text{ ton}/2,000 \text{ lbs}$$

b. Emissions Limitations:

PE shall not exceed 0.44 pound per hour.

PE shall not exceed 0.48 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the pound per hour emissions limitation shall be demonstrated based on the following calculation:

$$\text{PE (lbs/hr)} = \left[(\text{PE emissions factor (lb PE/ton of sand)} \times \text{maximum hourly throughput capacity of core machine (tons/hr)} \times (1 - \text{building settling factor})) + (\text{particulate emissions factor for fuel burning (lbs PE/million BTU)} \times \text{maximum fuel input capacity of process heater (million BTU/hr)}) + [\text{PE lb/gal for core wash} \times \text{maximum hourly wash usage in gallons} \times (1 - \text{transfer efficiency}) \times (1 - \text{building settling factor})] \right]$$



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$$\begin{aligned} &= [(0.35 \text{ lb PE/ton of sand} \times 3.85 \text{ tons sand/hr} \times (1-0.70)) + (0.007 \text{ lbs PE/million BTU} \times 3.0 \text{ million BTU/hr})] + [0.38 \text{ lb/gal} \times 0.59 \text{ gal/hr} \times (1-0.70) \times (1-0.70)] \\ &= 0.44 \text{ pound PE per hour} \end{aligned}$$

Where:

0.35 lb PE/ton of sand = PE emissions factor for process (RACM Table 2.7-1, 9/80);

3.85 tons per hour = maximum capacity of core machine;

70% = control efficiency of building that houses core machine;

0.007 lb PE/million BTU = particulate emissions factor for natural gas fuel burning from AP-42 Table 1.4-2, 7/98 converted from lb/million CF to lb/million BTU;

3.0 million BTU per hour = maximum natural gas fuel input capacity of process heater;

0.38 lb PE/gallon of wash = Refcobar 7502 as applied emissions factor;

0.59 gal/hr = maximum capacity of core wash;

70% = transfer efficiency of core wash; and

70% = control efficiency of building that houses core wash.

Compliance with the ton per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

$$\begin{aligned} \text{PE (tons/rolling, 12-month period)} &= [(\text{actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1)b.} \times \text{PE emissions factor} \times (1-\text{building settling factor})] + [(0.021 \text{ lb/hr (hourly PTE of process heater)} \times 8,760 \text{ hours/yr}) \times 1 \text{ ton/2,000 lbs}] + [0.38 \text{ lb PE/gal} \times 5,197 \text{ gallons (maximum annual wash)} \times (1-\text{transfer efficiency})] \times (1-\text{building settling factor})] \end{aligned}$$

c. Emissions Limitations:

PM₁₀ emissions shall not exceed 0.39 pound per hour.

PM₁₀ emissions shall not exceed 0.44 ton per rolling, 12-month period.

Applicable Compliance Method:



Compliance with the pound per hour emissions limitation shall be demonstrated based on the following calculation:

$$\begin{aligned}
\text{PM}_{10} \text{ (lbs/hr)} &= [(\text{PM}_{10} \text{ emissions factor (lb PM}_{10}\text{/ton of sand)} \times \text{maximum hourly throughput capacity of core machine (tons/hr)} \times (1 - \text{building settling factor}) + (\text{particulate emissions factor for fuel burning (lbs PM}_{10}\text{/million BTU)} \times \text{maximum fuel input capacity of process heater (million BTU/hr)}) + [\text{PM}_{10} \text{ lb/gal for core wash} \times \text{maximum hourly wash usage in gallons} \times (1 - \text{transfer efficiency}) \times (1 - \text{building settling factor})] \\
&= [(0.30 \text{ lb PM}_{10}\text{/ton of sand} \times 3.85 \text{ tons sand/hr} \times (1 - 0.70)) + (0.007 \text{ lbs PM}_{10}\text{/million BTU} \times 3.0 \text{ million BTU/hr}) + [0.38 \text{ lb/gal} \times 0.59 \text{ gal/hr} \times (1 - 0.70) \times (1 - 0.70)] \\
&= 0.39 \text{ pound PM}_{10} \text{ per hour}
\end{aligned}$$

Where:

0.30 lb PM₁₀/ton of sand = PM₁₀ emissions factor for process (RACM Table 2.7-1, 9/80 and PM calculator);

3.85 tons per hour = maximum capacity of core machine;

70% = control efficiency of building that houses core machine;

0.007 lb PM₁₀/million BTU = particulate emissions factor for natural gas fuel burning from AP-42 Table 1.4-2, 7/98 converted from lb/million CF to lb/million BTU;

3.0 million BTU per hour = maximum natural gas fuel input capacity of process heater;

0.38 lb PE/gallon of wash = Refcobar 7502 as applied emissions factor;

0.59 gal/hr = maximum capacity of core wash;

70% = transfer efficiency of core wash; and

70% = control efficiency of building that houses core wash.

Compliance with the ton per rolling, 12-month period emissions limitation shall be demonstrated based on the following calculation:

$$\text{PM}_{10} \text{ (tons/rolling, 12-month period)} = [(\text{actual tons of resin-coated sand used per rolling, 12-month period as determined pursuant to d)(1)b.} \times \text{PM}_{10} \text{ emissions factor} \times (1 - \text{building settling factor}) + (0.021 \text{ lb/hr (hourly PTE of process heater)} \times 8,760 \text{ hours/yr}) + [\text{PM}_{10} \text{ lb/gal for core wash} \times 5,197 \text{ gallons (maximum annual wash)}]$$



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usage) X (1- transfer efficiency) X (1-
building settling factor)] X 1 ton/2,000 lbs

d. Emissions Limitation:

For each building or structure housing any emissions source, the permittee shall not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.



16. P036, Mold blaster

Operations, Property and/or Equipment Description:

Mold blaster with a maximum hourly throughput of 2.40 tons/hr; controlled by baghouse 250.G1 with 100% capture and 99% control

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), as effective 11/30/01	Particulate emissions (PE) from the stack for P035, P036, P037 and P038 combined shall not exceed 0.01 gr/dscf. PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined. The requirements of this rule include compliance with OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(B). See b)(2)a. below.
b.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
c.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20% as a 6-minute average, except as provided by the rule.
d.	OAC rule 3745-17-11(B)	PE shall not exceed 9.7 pounds per hour.
e.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)c., c)(1), d)(2)-(5) and e)(3) below.



(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 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 regulation for NAAQS pollutant emissions 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 revision to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-77-07(C))

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

Permit-to-Install P0116276 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

- i. Use of a baghouse system when this air contaminant source is in operation with 100% capture and a design control efficiency of 0.010 gr/dscf.
- ii. PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-77-07(C))

- c. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

c) Operational Restrictions

- (1) This emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07, 40 CFR Part 64)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be



noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

- (2) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the pressure drop across the baghouse, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure drop shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

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

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible 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.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64, OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

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

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

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

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

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



- k. the name(s) of the personnel who performed the work.

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 8 inches of water.

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (5) The permittee shall maintain the records of the inspections and monitoring data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe 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.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:



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- a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
- b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit which were not representative of normal operations of the emissions unit;
- c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in (3)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in (3)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

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 stack for P035, P036, P037 and P038 combined shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

If required, particulate emissions 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:

PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined.

Applicable Compliance Method:

Compliance with the ton per year limit shall be based upon the following:

tons PE/year = (0.010 gr/dscf) X (flow rate of baghouse (20,000 acfm)) X (lb/7,000 gr) X (60 min/hour) X (ton/2,000 lbs) X (actual hours of operation/year).



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c. Emissions Limitation:

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

Applicable Compliance Method:

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

d. Emissions Limitation:

PE shall not exceed 9.7 pounds/hour.

Applicable Compliance Method:

If required, particulate emissions 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.

g) Miscellaneous Requirements

(1) None.



17. P037, Pipe blowout

Operations, Property and/or Equipment Description:

Pipe blowout with a maximum hourly throughput of 85 tons/hr; controlled by baghouse 250.G1 with 100% capture and 99% control

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), as effective 11/30/01	Particulate emissions (PE) from the stack for P035, P036, P037 and P038 combined shall not exceed 0.01 gr/dscf. PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined. The requirements of this rule include compliance with OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(B). See b)(2)a. below.
b.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
c.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20% as a 6-minute average, except as provided by the rule.
d.	OAC rule 3745-17-11(B)	PE shall not exceed 49.7 pounds per hour.
e.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)c. c)(1), d)(1)-(4) and e)(3) below.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 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 regulation for NAAQS pollutant emissions 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 revision to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-77-07(C))

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

Permit-to-Install P0116276 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

- i. Use of a baghouse system when this air contaminant source is in operation with 100% capture and a design control efficiency of 0.010 gr/dscf.
- ii. PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-77-07(C))

- c. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

c) Operational Restrictions

- (1) This emissions unit shall be vented to a baghouse at all time this emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07, 40 CFR Part 64)

d) Monitoring and/or Recordkeeping Requirements

- (1) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the pressure drop across the baghouse, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure drop shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual



manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

(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. 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.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64, OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

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

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the



cause of the deviation. The permittee shall maintain records of the following information for each investigation:

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

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

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

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 8 inches of water.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate



emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (4) The permittee shall maintain the records of the inspections and monitoring data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe 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.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit which were not representative of normal operations of the emissions unit;
 - c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
 - d. an identification of each incident of deviation described in (3)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and



- e. an identification of each incident of deviation described in (3)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

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 stack for P035, P036, P037 and P038 combined shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

If required, particulate emissions 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:

PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined.

Applicable Compliance Method:

Compliance with the ton per year limit shall be based upon the following:

$$\text{tons PE/year} = (0.010 \text{ gr/dscf}) \times (\text{flow rate of baghouse (20,000 acfm)}) \times (\text{lb/7,000 gr}) \times (60 \text{ min/hour}) \times (\text{ton/2,000 lbs}) \times (\text{actual hours of operation/year}).$$

- c. Emissions Limitation:

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

Applicable Compliance Method:

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

- d. Emissions Limitation:

PE shall not exceed 49.7 pounds/hour.



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Applicable Compliance Method:

If required, particulate emissions 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.

g) Miscellaneous Requirements

- (1) None.



18. P038, Mold grinder (Delvo No. 2)

Operations, Property and/or Equipment Description:

Mold grinder (Delvo No. 2) with a maximum hourly throughput of 3.60 tons/hr; controlled by baghouse 250.G1 with 100% capture and 99% control

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), as effective 11/30/01	Particulate emissions (PE) from the stack for P035, P036, P037 and P038 combined shall not exceed 0.01 gr/dscf. PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined. The requirements of this rule include compliance with OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(B). See b)(2)a. below.
b.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
b.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20% as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-11(B)	PE shall not exceed 7.4 pounds per hour.
d.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)c., c)(1), d)(1)-(4) and e)(3) below.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this



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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-77-07(C))

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

Permit-to-Install P0116276 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

- i. Use of a baghouse system when this air contaminant source is in operation with 100% capture and a design control efficiency of 0.010 gr/dscf.
- ii. PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-77-07(C))

- c. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

c) Operational Restrictions

- (1) This emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07, 40 CFR Part 64)

d) Monitoring and/or Recordkeeping Requirements

- (1) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the pressure drop across the baghouse, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure drop shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual



manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

(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. 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.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64, OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

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



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

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

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

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

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 8 inches of water.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate



emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (4) The permittee shall maintain the records of the inspections and monitoring data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

e) Reporting Requirements

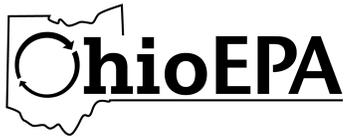
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe 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.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C), OAC rule 3745-17-07(A)(1), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit which were not representative of normal operations of the emissions unit;
 - c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
 - d. an identification of each incident of deviation described in (3)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and



- e. an identification of each incident of deviation described in (3)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

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 stack for P035, P036, P037 and P038 combined shall not exceed 0.01 gr/dscf.

Applicable Compliance Method:

If required, particulate emissions 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:

PE from the stack shall not exceed 7.51 tons/year from P035, P036, P037 and P038 combined.

Applicable Compliance Method:

Compliance with the ton per year limit shall be based upon the following:

$$\text{tons PE/year} = (0.010 \text{ gr/dscf}) \times (\text{flow rate of baghouse (20,000 acfm)}) \times (\text{lb/7,000 gr}) \times (60 \text{ min/hour}) \times (\text{ton/2,000 lbs}) \times (\text{actual hours of operation/year}).$$

- c. Emissions Limitation:

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

Applicable Compliance Method:

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

- d. Emissions Limitation:

PE shall not exceed 7.4 pounds/hour.



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Applicable Compliance Method:

If required, particulate emissions 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.

g) Miscellaneous Requirements

(1) None.



19. P901, Grey iron cupola

Operations, Property and/or Equipment Description:

85 TPH cupola furnace for molten iron production controlled by an afterburner and wet scrubber; this unit was installed in 1949; major modifications of this emissions unit occurred in 1989 and 1998

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) b)(1)(i), b)(2)(g) – b)(2)(i), d)(1) – d)(5), e)(1)- e)(4),

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)	<p>Emissions of particulate matter (PM) from the stack shall not exceed 0.078 pound per ton of molten iron produced; 6.63pounds per hour.</p> <p>Emissions of particulate matter less than 10 microns (PM₁₀) from the stack shall not exceed 5.44 pounds per hour.</p> <p>Sulfur dioxide (SO₂) emissions from the stack shall not exceed 0.029 pound per ton of molten iron produced; 2.47 pounds per hour.</p> <p>Carbon monoxide (CO) emissions from the stack shall not exceed 0.51 pounds per ton of molten iron produced; 43.35 pounds per hour.</p> <p>Volatile organic compounds (VOC) emissions from the stack shall not exceed 22.95 pounds per hour.</p> <p>Nitrogen oxides (NO_x) emissions from the stack shall not exceed 37.40 pounds per hour.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Visible particulate emissions (PE) of fugitive dust shall not exceed 20% opacity, as a 3-minute average.</p> <p>Best available control measures shall be implemented that are sufficient to minimize or eliminate emissions of fugitive dust.</p> <p>See b)(2)a. and b. below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC 3745-31- 05(D), OAC rule 3745-31-10 through 20, and OAC rule 3745-21-08(D).</p>
b.	OAC rule 3745-31-10 through -20	<p>PM₁₀ emissions from the stack shall not exceed 0.064 pound per ton of molten iron produced.</p> <p>PM₁₀ emissions shall not exceed 10.27 tons based on a rolling, 12-month summation.</p> <p>VOC emissions from the stack shall not exceed 0.27 pound per ton of molten iron produced.</p> <p>VOC emissions shall not exceed 37.13 tons based on a rolling, 12-month summation.</p> <p>NO_x emissions from the stack shall not exceed 0.44 pound per ton of molten iron produced.</p> <p>NO_x emissions shall not exceed 60.50 tons based on a rolling, 12-month summation.</p> <p>See b)(2)c.-e. below.</p>
c.	OAC rule 3745-31-05(D) (Synthetic minor to avoid PSD requirements and to ensure compliance with the NAAQS)	<p>PM emissions shall not exceed 12.63 tons based on a rolling, 12-month summation.</p> <p>SO₂ emissions shall not exceed 3.99 tons</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>based on a rolling, 12-month summation.</p> <p>CO emissions shall not exceed 70.12 tons based on a rolling, 12-month summation.</p>
d.	OAC rule 3745-17-07(A)	Visible PE from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-21-08(D)	See b)(2)d. below.
f.	OAC rule 3745-17-08	See b)(2)f. below.
g.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	OAC 3745-18-06(E)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
i.	Director's Final Findings and Orders issued December 30, 2004	See b)(2)g.-i. below.
j.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)j., d)(2), d)(8)-(10) and e)(3) below.
k.	<p>40 CFR Part 63, Subpart ZZZZ (40 CFR 63.10880 – 10906)</p> <p>[In accordance with 40 CFR 63.10880 (a), this facility is classified as an existing large iron and steel foundry that is an area source of HAPs that commenced construction or reconstruction before September 17, 2007 with an annual metal melt production rate of 20,000 tons or greater.]</p>	<p>You must not discharge to the atmosphere emissions from any metal melting furnace that exceed 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged for an existing iron and steel foundry. (63.10895(c)(1))</p> <p>You must not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average) except for one 6-minute average per hour that does not exceed 30 percent. (63.10895(e))</p> <p>See b)(2)g. below.</p>
l.	40 CFR 63.1-15 (40 CFR 63.7760)	Table 3 to Subpart ZZZZ of 40 CFR Part 63 – Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries shows which parts of the General Provisions in 40 CFR 63.1-15 apply.



(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures on the cupola furnace for the purpose of minimizing or eliminating emissions of fugitive dust. In accordance with the permittee's application, the permittee shall maintain enclosures to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional measures to ensure compliance.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- b. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

- c. As part of the BACT determination for PM₁₀, the cupola emissions must be vented to an operating scrubber system with a control efficiency of at least 99.4%. Compliance with the control efficiency requirement shall be demonstrated by compliance with the short term PM₁₀ emission limits in b)(1)a.

(Authority for term: OAC rule 3745-31-10 through 20, OAC rule 3745-77-07(C))

- d. As part of the BACT determination for VOC, the cupola emissions must be vented to an afterburner. VOC and CO gases generated during the operation of this emission unit shall be burned at 1300 degrees Fahrenheit for 0.3 seconds or greater in a direct-flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.

(Authority for term: OAC rule 3745-31-10 through 20, OAC rule 3745-77-07(C))

- e. As part of the BACT determination for NO_x, the cupola emissions must be vented to an afterburner equipped with low NO_x burners.

(Authority for term: OAC rule 3745-31-10 through 20, OAC rule 3745-77-07(C))

- f. This facility is not located in an area identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07 (B) and OAC rule 3745-17-08 (B), respectively.

- g. The permittee shall maintain and implement the preventive maintenance and malfunction abatement plan (PMMAP) required by Order #2 of the Director's Final Findings and Orders issued December 30, 2004 that was received by Ohio EPA on March 10, 2005, as well as any modifications of the PMMAP that have been approved by Ohio EPA. The PMMAP for the afterburner and wet scrubber systems is designed to prevent, detect, and correct malfunctions or equipment failures which could result in emissions exceeding any applicable law.



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- h. The permittee shall maintain operation and maintenance records, as required by the PMMAP, to demonstrate that the PMMAP is fully implemented.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- i. Modifications to the PMMAP shall be prepared in accordance with applicable Ohio EPA guidance. The PMMAP shall be periodically updated and revised as necessary with prior approval from SEDO. If SEDO does not approve or deny a modification to the PMMAP within 30 days of receipt of the modified PMMAP, the permittee is authorized to conduct the activities described in the modified PMMAP provided the modified PMMAP complies with applicable Ohio EPA guidance and OAC rule 3745-15-06.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- j. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

- k. The permittee shall comply with the additional applicable requirements under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10880(c)	On and after January 2, 2008, if your iron and steel foundry becomes a major source as defined in 63.2, you must meet the requirements of 40 CFR Part 63, Subpart EEEEE.
63.10895(a)	Comply with 63.10885, 63.10886, 63.10895(a)-(e), and 63.10896.
63.10880(f)	Initial applicability determination requirements.
63.10881(a)(2)	Compliance date not later than 1/2/09 for the pollution prevention management practices for metallic scrap in 63.1085(a) and binder formulations in 63.10886.
63.10881(a)(2)	Compliance date not later than 1/4/10 for the pollution prevention management practices for mercury in 63.10885(b).
63.10881(a)(3)	Compliance date not later than 2 years after date of your large foundry's notification of the initial determination required in 63.10880(f) and for the standards and management practices in 63.10895.



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63.10881(d)(2)	Following the initial determination for an existing affected source required in 63.10880(f), you must comply with large foundry for at least 3 years before able to reclassify as a small foundry even if annual metal melt production falls below 20,000 tons. After 3 years you may reclassify your facility as a small foundry provided your annual metal melt production for the preceding calendar year was 20,000 tons or less.
63.10906	Definitions
63.10905	Who implements and enforces this subpart

(Authority for term: 40 CFR Part 63, Subpart ZZZZ, OAC rule 3745-77-07(C))

c) Operational Restrictions

- (1) The maximum production rate for this emissions unit shall not exceed 275,000 tons of molten iron produced based on a rolling, 12-month summation; and

(Authority for term: OAC rule 3745-31-05(D), Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- (2) This emissions unit shall operate for no more than 20 hours per day.

(Authority for term: OAC rule 3745-31-05(D), Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- (3) The cupola capture and collection system shall meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists, and be designed such that emissions from the cupola are conveyed under negative pressure through the two wet scrubbers.

(Authority for term: OAC rule 3745-31-05(D), Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

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

63.10895(b)	You must operate a capture and collection system for each metal melting furnace that meets the accepted engineering standards, such as those published by ACGIH.
63.10896(a)	Operate at all times according to O&M plan for each control device subject to PM, metal HAP, or opacity emissions limit in 63.10895.
63.10898(l)	You may change the operating limits for a baghouse if you meet the following requirements: (1) Submit a written notification to the Administrator of your



	<p>plan to conduct a new performance test to revise the operating limit;</p> <p>(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in 63.10895(c); and</p> <p>(3) Establish revised operating limits according to the applicable procedures in Table 2 to this subpart.</p>
--	--

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the static pressure drop, in inches of water, across the wet scrubber system (venturi scrubber, ring jet scrubber, packed bed and demister) during operation of this emissions unit, including periods of startup and shutdown, per the PMMAP. The permittee shall record the 3-hour average static pressure drop, in inches of water, across the scrubber. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s).

For each continuous parameter monitoring system (CPMS) for pressure drop, the permittee shall: (i) locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion; (ii) use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range; (iii) check the pressure tap for pluggage daily; (iv) using a manometer, check gauge calibration quarterly and transducer calibration monthly; (v) conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor; and (vi) at least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

The wet scrubbers for the cupola will be operated so that the 3-hour average total pressure drop across the entire control system (venturi scrubber, ring jet scrubber, packed bed and demister) does not fall below the minimum levels established during the initial or subsequent successful stack test (which shall not be less than 48 inches of water column).

When determining three-hour average static pressure drop the following periods shall not be included: (1) the first 15 minutes of start up at the beginning of the operating day, (2) the last 30 minutes during cupola "melt out" at the end of the operating day, and (3) periods when the cupola is off-blast and for 15 minutes after going on-blast from an off-blast condition.

Off-blast means those periods of cupola operation when the cupola is not actively being used to produce molten metal. Off-blast conditions include cupola startup when air is introduced to the cupola to preheat the sand bed and other cupola startup procedures as



defined in the startup, shutdown, and malfunction plan. Off-blast conditions also include idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal.

On-blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On-blast conditions are characterized by both blast air introduction and molten metal production.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C))

- (2) The permittee shall install, operate and maintain a continuous temperature monitor and recorder which measures and records the exhaust gas temperature when the emission unit is in operation per the PMMAP. Units shall be in degrees Fahrenheit. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

During operation of the cupola, the temperature during the following periods will not be included in the three-hour average: (1) the first 15 minutes of start up at the beginning of the operating day, (2) the last 30 minutes during cupola "melt out" at the end of the operating day, and (3) periods when the cupola is off-blast and for 15 minutes after going on-blast from an off-blast condition.

Off-blast means those periods of cupola operation when the cupola is not actively being used to produce molten metal. Off-blast conditions include cupola startup when air is introduced to the cupola to preheat the sand bed and other cupola startup procedures as defined in the startup, shutdown, and malfunction plan. Off-blast conditions also include idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal.

On-blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On-blast conditions are characterized by both blast air introduction and molten metal production.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C), and 40 CFR Part 64)

- (3) The permittee shall install, operate and maintain two (2) water flow meters, one to measure the water flow rate to the venturi scrubber and one to measure the flow rate to the ring jet scrubber. The 3-hour average water flow rate to the venturi scrubber and the ring jet scrubber will be recorded when the unit is in operation per the PMMAP and units shall be in gallons per minute. The water flow meters and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

For each water flow meter, Clow will: (i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow



or abnormal velocity distributions due to upstream and downstream disturbances; (ii) use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate; (iii) conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions; and (iv) at least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

The minimum flow rate for each wet scrubber shall be established during the initial or subsequent successful stack test. Average water flow over a three hour period shall be maintained at the minimum flow rate established during the initial or subsequent successful stack test.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C))

- (4) The permittee shall install pressure gauges on the two pumps supplying water to the venturi scrubber and the ring jet scrubber. In the event that any of the water flow meters installed on the two wet scrubbers fails, water pressure shall be monitored on the pump that is supplying water to that venturi scrubber and/or ring jet scrubber for a period not to exceed 30 days while the water flow meter is repaired or replaced.

Calibration of the pressure gauge shall be verified within 24 hours of use following a water flow meter failure. The minimum water pressure for each wet scrubber shall be established during the initial or subsequent successful stack test. During this period, the permittee will operate that scrubber such that the three-hour average pump pressure does not fall below level established during the initial or subsequent successful stack tests.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C))

- (5) The permittee shall collect and record the following information each day:
 - a. the hours per day this emissions unit is operated; and
 - b. all control equipment downtime, per the PMMAP.

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C).)

- (6) 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 this emissions unit per the Clow Work Instructions as provided for in the PMMAP and any applicable preventative maintenance procedures. 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 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.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- (7) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the total weight of metal produced (in tons) in this emissions unit; and
 - b. the rolling, 12-month summation of metal produced, in tons (i.e., the metal produced rate for the current month added to the metal produced rate for the previous 11 calendar months).

(Authority for term: OAC rule 3745-31-05(D), Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- (8) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the pressure drop across the baghouse, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure drop shows operation outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (9) The permittee shall replace the thermocouple associated with the monitoring of the combustion zone temperature once a month (Work Order # PM CUP70). The thermocouple purchased and installed shall carry a certification of calibration per ASTM E220-13.



The permittee shall maintain records of all work orders associated with the monthly thermocouple replacement.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (10) The permittee shall maintain the records of the inspections and monitoring data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

- (11) The permittee shall comply with all the applicable monitoring and recordkeeping requirements under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10885(a)	Metallic scrap management program: For each segregated metallic scrap storage area, bin or pile, you must comply with the materials acquisition requirements in paragraph (a)(1) or (2) of this section. You must keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties and provide a copy to each of your scrap providers. You may have certain scrap subject to paragraph (a)(1) and other scrap subject to paragraph (a)(2) at your facility provided the metallic scrap remains segregated until charge make-up.
63.10885(a)(2)	General iron and steel scrap: You must prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the following information: (ii) For scrap charged to a cupola metal melting furnace that is equipped with an afterburner, specifications for metallic scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastics, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.
63.10885(b)	Mercury requirements: For scrap containing motor vehicle scrap, you must procure the scrap pursuant to 63.10885(b)(2) for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in 63.10885(b)(4) for each scrap provider, contract, or shipment. You may have one scrap provider, contract or shipment subject to one compliance



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	provision and others subject to another compliance plan.
63.10885(b)(2)	Option for approved mercury programs: You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in 63.10885(b)(2)(i)-(iii). If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based in the criteria in 63.10885(b)(2)(i)-(iii).
63.10885(b)(2)(iv)	<p>You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.</p> <p>(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.</p> <p>(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.</p> <p>(C) You must conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.</p>
63.10885(b)(4)	Scrap that does not contain motor vehicle scrap: For scrap not subject to the requirements in paragraphs (b)(1) through (3) of this section, you must maintain records of documentation that this scrap does not contain motor vehicle scrap.
63.10896(a)	<p>Prepare and maintain a copy of O&M plan at the facility and make available upon request for review. At a minimum it must contain:</p> <p>(1) General facility and contact information;</p> <p>(2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply</p>



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	<p>with this subpart;</p> <p>(3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions; and</p> <p>(4) Identity and estimated quantity of the replacement parts that will be maintained in inventory.</p>
63.10896(b)	<p>You may use an O&M, preventative maintenance or plan similar to O&M to address requirements 63.10896(a)(1)-(5) to demonstrate compliance with the requirements for an O&M plan..</p>
63.10897(a)	<p>Conduct an initial inspection of each PM control device for a metal melting furnace no later than 60 days after the applicable compliance date for each installed control device which has been operated within 60 days of the compliance date.</p> <p>Following the initial inspections, you must perform periodic inspections and maintenance of each PM control device for a metal melting furnace at an existing affected source.</p> <p>You must perform the initial and periodic inspections according to the requirements in 63.10897(a)(4). You must record the results of each initial and periodic inspection and any maintenance action in the logbook required in 63.10899(b)(13).</p>
63.10897(a)(4)	<p>For the initial inspection of each wet scrubber, you must verify the presence of water flow to the scrubber. You must also visually inspect the system ductwork and scrubber units for leaks and inspect the interior of the scrubber for structural integrity and the condition of the demister and spray nozzle. Following the initial inspections, you must inspect and maintain each wet scrubber according to the requirements in 63.10897(4)(i)-(ii).</p>
63.10897(a)(4)(i)	<p>You must conduct daily inspection to verify the presence of water flow to the scrubber.</p>
63.10897(a)(4)(ii)	<p>You must conduct monthly visual inspections of the system ductwork and scrubber unit for leaks.</p>
63.10897(a)(1)(iii)	<p>You must conduct inspections of the interior of for the scrubber to determine the structural integrity and the condition of the demister and spray nozzle every 12 months.</p>
63.10897(e)	<p>You must make monthly inspections of equipment that is important to performance of the total capture system (i.e.,</p>



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	pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). You must repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. You must the record date and the results of each inspection and date of repair of any defect or deficiency.
63.10897(f)	You must install, operate and maintain each CPMS or other measurement device according to your O&M plan. You must record all information needed to document conformance with these requirements.
63.10897(g)	In event of an exceedance of an established emission limitation, including an operating limit, you must restore operations of the emissions source, including the control device and associated capture system to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. You must record the date and time corrective action was initiated, the corrective action taken, and the date corrective action was completed.
63.10899(a)	Maintain records for 5 years; most recent 2 years on site.
63.10899(b)(1)	You must keep records of your written materials specifications according to 63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in 63.10885(a)(1) and or for the use of general scrap in 63.10885(a)(2). You must keep records documenting compliance with 63.10885(b)(4) for scrap that does not contain motor vehicle scrap.
63.10899(b)(3)	You must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If your provider is a broker, you must maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program.
63.10899(b)(6)	You must keep records of monthly metal melt production for each calendar year.
63.10899(b)(7)	You must keep record of the O&M plan as required by



	63.10896(a) and records that demonstrate compliance with the plan requirements.
63.10899(b)(10)	You must keep records of capture system inspections and repairs as required by 63.10897(e).
63.10899(b)(11)	You must keep records demonstrating conformance with your specifications for the operation of CPMS as required by 63.10897(f).
63.10899(b)(12)	You must keep records of corrective action(s) for exceedances and excursions as required by 63.10897(g).
63.10899(b)(13)	You must record the results of each inspection and maintenance required by 63.10897(a) for PM control devices in a logbook. You must keep the logbook available to the Administrator upon request.
63.10899(b)(13)(iii)	You must keep records in the logbook of the date and time of each recorded action for a wet scrubber (including ductwork), the results of each inspection, and the results of any maintenance performed on the wet scrubber.

(Authority for term: 40 CFR Part 63, Subpart ZZZZ, OAC rule 3745-77-07(C))

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit quarterly deviation (excursion) reports which provide the following information for each period during which the static pressure across the wet scrubber system falls outside of the applicable range:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the static pressure during the excursion;
 - d. the cause(s) for the excursion, if known; and
 - e. the corrective action which has been or will be taken to prevent similar excursions.

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

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C))



- (3) The permittee shall submit quarterly deviation (excursion) reports which provide the following information for each 3-hour averaging period during which the exhaust gas temperatures fall below 1300 degrees Fahrenheit:
- a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion, if known; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

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

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C), and 40 CFR Part 64)

- (4) The permittee shall submit quarterly deviation (excursion) reports which provide the following information for each period during which the water flow rate to the venturi scrubber and/or ring jet scrubber fall below the applicable rates:
- a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion, if known; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

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

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C))

- (5) When required to monitor the water pressure, the permittee shall submit quarterly reports which provide the following information for each period during which the pump water pressure to the venturi scrubber and/or ring jet scrubber fall below the applicable rates :
- a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the pump water pressure during the excursion;
 - d. the cause(s) for the excursion, if known; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.



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

(Authority for term: Director's Final Findings and Orders issued December 30, 2004, Section V.2., OAC rule 3745-77-07(C))

- (6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible 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.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- (7) The permittee shall submit quarterly deviation (excursion) reports that identify any monthly record showing an exceedance of the rolling, 12-month production limitations specified in c)(1) or any day during which the 20-hour limit on operations in c)(2) is exceeded. The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(D), Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- (8) The permittee shall submit quarterly deviation (excursion) reports that identify any monthly record showing an exceedance of the rolling, 12-month emissions limitations specified in b)(1). The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-31-05(D), Director's Final Findings and Orders issued December 30, 2004, OAC rule 3745-77-07(C))

- (9) The permittee shall comply with all the applicable reporting requirements under 40 CFR Part 63, Subpart ZZZZZ, including the following sections:

63.10880(f)	You must submit a written notification to the Administrator of the initial applicability that identifies your area source as a small or large foundry no later than January 2, 2009.
63.10881(d)(2)	If you reclassify your large foundry as a small foundry, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a small foundry no later than the date you notify the Administrator of the reclassification. If the annual metal melt production exceeds 20,000 tons during a subsequent year, you must submit a notification or reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the date you notify the Administrator of the reclassification.



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63.10899(c)	<p>You must submit semiannual compliance reports to the Administrator according to the requirements in 63.10(e). The reports must include, at a minimum, the following information:</p> <p>(1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action(s) taken;</p> <p>(3) Summary information on any deviation from the pollution prevention management practices in 63.10885 and 63.10886 and the operation and maintenance requirements in 63.10896 and the corrective action(s) taken;</p>
63.10899(d)	<p>You must submit written notification to the Administrator of the initial classification of you source as a large iron and steel facility as required in 63.10880(f) for any subsequent reclassification as required in 63.10881(d)(2).</p>
63.10900(b)	<p>If you own or operate an existing large foundry, your notification of compliance status required by 63.9(h) must include each applicable certification of compliance, signed by a responsible official, in Table 4 of this subpart.</p>

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

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 Limitations:

PM emissions from the stack shall not exceed 0.078pound per ton of molten iron produced; 6.63 pounds per hour.

Applicable Compliance Method:

The pounds per ton of molten iron produced emission limitation was established using the emission factor of 13.8 pounds of particulate emissions per ton of gray iron produced (1/95 AP-42 Table 12.10-3) multiplied by a control efficiency of 99.435% (the control efficiency the permittee committed to U.S.EPA to meet), which equals 0.078 pounds per ton of molten iron produced.

Particulate emissions 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 written approval from Ohio EPA, Southeast District Office. (See f)(2))



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The pounds per hour emission limitation was established using the emission factor of 13.8 pounds of particulate emissions per ton of gray iron produced (1/95 AP-42 Table 12.10-3) multiplied by 85 tons of gray iron produced per hour (maximum operating rate) multiplied by the 99.435% control efficiency which equals 6.63 pounds per hour.

b. Emission Limitations:

SO₂ emissions from the stack shall not exceed 0.029 pound per ton of molten iron produced; 2.47 pounds per hour.

Applicable Compliance Method:

Compliance shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". See f)(2).

c. Emission Limitations:

CO emissions from the stack shall not exceed 0.51 pounds per ton of molten iron produced; 43.35 pounds per hour.

Applicable Compliance Method:

Carbon monoxide emissions shall be determined according to test Methods 1 - 4, and 10 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 written approval from Ohio EPA, Southeast District Office. See f)(2).

d. Emission Limitation:

If required, visible particulate emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

Compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources" as such appendix existed on July 1, 2002.

e. Emission Limitations:

PM₁₀ emissions from the stack shall not exceed 5.44 pounds per hour.

PM₁₀ emissions from the stack shall not exceed 0.064 pound per ton of molten iron produced.

Applicable Compliance Method:

The pounds per hour emission limitation was established using the emission factor of 13.8 pounds of particulate emissions per ton of gray iron produced (1/95



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AP-42 Table 12.10-3) multiplied by 77.7% (percent of particulate emission that are less than 10 microns per 1/95 AP-42 Table 12.10-9) multiplied by 85 tons of gray iron produced per hour (maximum operating rate) multiplied by the 99.4% BACT control efficiency which equals 5.44 pounds per hour.

The pounds per ton of molten iron produced emission limitation was established using the emission factor of 13.8 pounds of particulate emissions per ton of gray iron produced (1/95 AP-42 Table 12.10-3) multiplied by 77.7% (percent of particulate emission that are less than 10 microns per 1/95 AP-42 Table 12.10-9) by the 99.4% BACT control efficiency which equals 0.064 pounds per ton of molten iron produced.

PM₁₀ emissions shall be determined according to test Methods 201/201A, and 202 as set forth in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior written approval from Ohio EPA, Southeast District Office. See f)(2).

f. Emission Limitations:

VOC emissions from the stack shall not exceed 22.95 pounds per hour.

VOC emissions from the stack shall not exceed 0.27 pound per ton of molten iron produced.

Applicable Compliance Method:

Volatile organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A 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 written approval from Ohio EPA, Southeast District Office. See f)(2).

g. Emission Limitations:

NO_x emissions from the stack shall not exceed 37.4 pounds per hour.

NO_x emissions from the stack shall not exceed 0.44 pound per ton of molten iron produced.

Applicable Compliance Method:

Nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 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 written approval from Ohio EPA, Southeast District Office. See f)(2).

h. Emission Limitation:

PM₁₀ emissions shall not exceed 10.27 tons based on a rolling, 12-month summation.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equations:

$$E = (M \times EF_s \times 1/2,000) + (M \times EF_f \times (1 - 0.999) \times 1/2,000)$$

Where:

E = the emission rate, in tons, based on a rolling, 12-month summation;

M = the molten iron production rate, in tons, during the rolling, 12-month period from d)(7)b.;

EF_s = the most recent emission factor for each pollutant, in pounds of pollutant per ton of molten iron, determined from the most recent emissions test; and

EF_f = 13.8 pounds PM X 0.777 (uncontrolled emission factor for PM from AP-42 Table 12.10-3 (1/95) adjusted to PM₁₀ fraction).

i. Emission Limitation:

PM emissions shall not exceed 12.63 tons based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equations:

$$E = (M \times EF_s \times 1/2,000) + (M \times EF_f \times (1 - 0.999) \times 1/2,000)$$

Where:

E = the emission rate, in tons, based on a rolling, 12-month summation;

M = the molten iron production rate, in tons, during the rolling, 12-month period from d)(7)b.;

EF_s = the most recent emission factor for each pollutant, in pounds of pollutant per ton of molten iron, determined from the most recent emissions test; and

EF_f = 13.8 pounds PM (uncontrolled emission factor for PM from AP-42 Table 12.10-3 (1/95)).

j. Emissions Limitations:

VOC emissions shall not exceed 37.13 tons based on a rolling, 12-month summation.

NO_x emissions shall not exceed 60.50 tons based on a rolling, 12-month summation.



SO₂ emissions shall not exceed 3.99 tons based on a rolling, 12-month summation.

CO emissions shall not exceed 70.12 tons based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equations:

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

where:

E = the emission rate, in tons, based on a rolling, 12-month summation;

M = the molten iron production rate, in tons, during the rolling, 12-month period from d)(7)b.; and

EF= the most recent emission factor for each pollutant, in pounds of pollutant per ton of molten iron, determined from the most recent emissions test.

k. Emission Limitation:

Visible particulate emissions from the stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

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

l. Emissions Limitations:

You must not discharge to the atmosphere emissions from any metal melting furnace that exceed 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged for an existing iron and steel foundry. (63.10895(c)(1))

You must not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average) except for one 6-minute average per hour that does not exceed 30 percent. (63.10895(e))

Applicable Compliance Method:

Compliance shall be determined in accordance with the testing requirements pursuant to 40 CFR Part 63, Subpart ZZZZZ. See f)(2) below.



- (2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted, or have been conducted, as required in 40 CFR 63.10898(a) and (b) to demonstrate compliance with the PM or total metal HAP limit in 63.10895(c) and shall be conducted as required in 40 CFR 63.10898(i) to demonstrate compliance with the fugitive opacity limit in 63.10895(e).

63.10898(a)	You must conduct, or have conducted, a performance test to demonstrate initial compliance with the applicable emissions limits for each metal melting furnace that is subject to an emissions limit in 63.10895(c) and for each building or structure housing foundry operations that is subject to the opacity limit for fugitive emissions in 63.10895(e). You must conduct, or have conducted the test within 180 days of your compliance date and report the results in your notification of compliance status.
63.10898(b)	You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in 63.10895(c) for a metal melting furnace no less frequently than every 5 years and each time elect to change an operating limit or make a process change likely to increase HAP emissions.
63.10898(c)	You must conduct each performance test according to 63.7(e)(1), Table 1 to this subpart, and 63.10898(d).
63.10898(d)	Equation to determine compliance with the applicable PM or total metal HAP emissions limit in a lb/ton of metal charged format.
63.10898(h)	You must conduct each opacity test for fugitive emission according to the requirements in 63.6(h)(5) and Table 1.
63.10898(i)	You must conduct subsequent performance test to demonstrate compliance with the opacity limit in 63.10895(e) no less frequently than every 6 months and each time you make a process change likely to increase fugitive emissions.
63.10898(j)	In your performance test report, you must certify that the capture system operated normally during the performance test.

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))



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- i. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) as detailed in Table 1 of 40 CFR Part 63, Subpart ZZZZZ:

PM, U.S. EPA Test Methods 1-5;

Fugitive Opacity, U.S. EPA Test Method 9;

Alternative U.S. EPA approved test methods in accordance with the requirements of Table 1 of 40 CFR Part 63, Subpart ZZZZZ.

Fugitive Opacity, U.S. EPA Test Method 22 - if applicable

(Authority for term: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-77-07(C))

- b. Emission testing to demonstrate compliance with OAC rule 3745-31-05(A)(3) and OAC rules 3745-31-10 through -20 shall be conducted within six months after final issuance of this permit.

- i. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations for PM, PM₁₀, NO_x, SO₂, CO and VOC.

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

For PM, Methods 1-5 of 40 CFR Part 60, Appendix A

For PM₁₀, Methods 1-4 and 201 or 201A of 40 CFR Part 51, Appendix M

For NO_x, Methods 1-4 and 7 or 7E of 40 CFR Part 60, Appendix A

For SO₂, Methods 1-4 and 6 or 6C of 40 CFR Part 60, Appendix A

For CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A

For VOC, Methods 1-4 and 25 and/or 18 of 40 CFR Part 60, Appendix A

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

(Authority for terms: OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 20, OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- c. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

- d. 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, Southeast 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)



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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, Southeast District Office refusal to accept the results of the emission test(s).

- e. Personnel from the Ohio EPA, Southeast 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
- f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast 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, Southeast District Office.

(Authority for terms: 40 CFR Part 63, Subpart ZZZZZ, OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 20, OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

g) Miscellaneous Requirements

- (1) None.



20. P911, Pipe ID Shotblast

Operations, Property and/or Equipment Description:

Pipe ID Shotblast with a maximum throughput rate of 26.2 tons of pipe/hour and a federally enforceable throughput of 4,000 tons of pipe per rolling, 12-month period. Controlled with a baghouse that vents inside of the building, designed to meet 0.0075 gr/dscf (4,000 acfm) and 90% capture - located on the property of McWane Poles.

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) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Particulate emissions (PE) shall not exceed 2.06 tons per rolling, 12-month period. PM ₁₀ /PM _{2.5} emissions shall not exceed 1.23 tons per rolling, 12-month period.
b.	OAC rule 3745-31-05(A)(3), as effective June 30, 2008	This emissions unit shall be controlled with a baghouse with a capture efficiency of 90% an outlet loading not to exceed 0.0075 gr/dscf of PE/PM ₁₀ /PM _{2.5} . See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements of OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account taking into the federally enforceable restrictions in b)(1)a. above. See b)(2)b. below.
d.	OAC rule 3745-17-07(B) OAC rule 3745-17-08(B)	See b)(2)c. below.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-11(B)(1) [Curve P-1 of Figure 2]	PE from any stack serving this emissions unit shall not exceed 27.8 lbs/hr. The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3), until U.S. EPA approves the June 30, 2008 version of OAC rule 3745-31-05.
f.	OAC rule 3745-17-07(A)	Visible PE from the stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-31-05(E) [Voluntary restriction to show compliance with a 90% capture efficiency]	No visible emissions of fugitive PE from the building egress points.
h.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See b)(2)d. c)(2), d)(7)-(10) and e)(4) below.

(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C))

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

(Authority for term: OAC rule 3745-31-05(A)(3)(a)(ii), OAC rule 3745-77-07(C))

- c. This facility is not subject to OAC rule 3745-17-07 or OAC rule 3745-17-08 because this facility is located in Coshocton Township which is not identified as an Appendix A area pursuant to OAC rule 3745-17-08.

- d. The operation of this emissions unit is interlocked with the control equipment. Therefore, bypass detection requirements of 40 CFR 64.3(a)(2) do not apply.

c) Operational Restrictions

- (1) The permittee has requested a federally enforceable limitation on the maximum annual throughput of metal blasted for this emissions unit in order to restrict the federally enforceable potential to emit to avoid major modification status for PE/PM₁₀/PM_{2.5}. The maximum annual throughput for this emissions unit shall not exceed 4,000 tons of blasted product, based upon a rolling, 12-month summation of the throughput.



Preliminary Proposed Title V Permit

McWane Ductile - Ohio

Permit Number: P0089138

Facility ID: 0616010006

Effective Date: To be entered upon final issuance

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

Month(s)	Maximum Allowable Cumulative Throughput of Blasted Product (tons)
1	334
1-2	667
1-3	1,000
1-4	1,334
1-5	1,667
1-6	2,000
1-7	2,334
1-8	2,667
1-9	3,000
1-10	3,334
1-11	3,667
1-12	4,000

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

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permittee shall properly install, operate, and maintain the control equipment when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The control equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C), 40 CFR Part 64)



Preliminary Proposed Title V Permit

McWane Ductile - Ohio

Permit Number: P0089138

Facility ID: 0616010006

Effective Date: To be entered upon final issuance

- (3) The permittee shall install and operate a baghouse for the control of PE whenever this emissions unit is in operation and shall maintain the baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

- (4) In the event the baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

d) Monitoring and/or Recordkeeping Requirements

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

- a. the throughput of blasted product, in tons, for each month;
- b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the throughput of blasted product, in tons;
- c. also, during the first 12 calendar months of operation, the permittee shall record the cumulative throughput of blasted product, in tons, for each calendar month.
- d. the monthly emissions of PE and PM₁₀/PM_{2.5} (both stack and fugitive emissions combined) from this emissions unit;
- e. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of emissions of PE and PM₁₀/PM_{2.5} (both stack and fugitive emissions combined) from this emissions unit;
- f. also, during the first 12 calendar months of operation, the permittee shall record the cumulative emissions of PE and PM₁₀/PM_{2.5} (both stack and fugitive emissions combined) for each calendar month for this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))



- (3) The permittee shall conduct periodic inspections of the baghouse to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

- (5) The permittee shall document each inspection (periodic and annual) of the baghouse system and shall maintain the following information:

- a. the date of the inspection;
- b. a description of each/any problem identified and the date it was corrected;
- c. a description of any maintenance and repairs performed; and
- d. the name of person who performed the inspection.

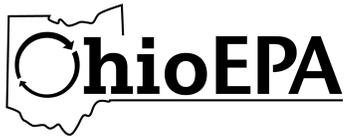
These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

- (6) The permittee shall maintain records that document any time periods when the baghouse was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

- (7) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the baghouse controlling this emissions unit are the pressure drop across the baghouse, established in accordance with the manufacturer's recommendations, and visible emission readings. When the pressure drop shows operation outside the indicator ranges, the permittee shall take corrective actions to



restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan.

(Authority for term: OAC 3745-77-07 and 40 CFR, Part 64)

- (8) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible 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.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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

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



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

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

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

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

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 5 inches of water.

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

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)



- (10) The permittee shall maintain the records of the inspections and monitoring data required above, any corrective actions taken in response to excursions, and support information, such as calibration and maintenance records, for a period of five years from the date the record was created.

(Authority for term: OAC rule 3745-77-07 and 40 CFR Part 64)

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.

(Authority for term: OAC rule 3745-31-02, OAC rule 3745-77-07(C))

- (2) The permittee shall submit quarterly reports that identify:

- a. all exceedances of the rolling, 12-month limitation on the throughput of blasted product for this emissions unit;
- b. for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative throughput of blasted product for this emissions unit; and,
- c. all exceedances of the rolling, 12-month limitation of PE and PM₁₀/PM_{2.5}.

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

(Authority for term: OAC rule 3745-31-05(D), OAC rule 3745-77-07(C))

- (3) The permittee shall submit quarterly reports that identify:

- a. any daily record showing that the baghouse was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation.

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



The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-31-05(E), OAC rule 3745-77-07(C))

(4) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

- a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
- b. all days during which any visible particulate emissions were observed from the stack serving this emissions unit which were not representative of normal operations of the emissions unit;
- c. an identification of each incident of deviation described above where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in (4)a. where prompt corrective action, that would bring the pressure differential into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in (4)a. where proper records were not maintained for the investigation and/or the corrective action.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

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 shall not exceed 2.06 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with this emissions limitation shall be determined by the record keeping requirements in d)(1) above.

b. Emissions Limitation:

PM₁₀/PM_{2.5} emissions shall not exceed 1.23 tons per rolling, 12-month period.



Applicable Compliance Method:

Compliance with this emissions limitation shall be determined by the record keeping requirements in d)(1) above.

c. Emissions Limitation:

This emissions unit shall be controlled with a baghouse with a capture efficiency of 90% an outlet loading not to exceed 0.0075 gr/dscf of PE/PM₁₀/PM_{2.5}.

Applicable Compliance Method:

Compliance with the 0.0075 gr/dscf emissions limitation may be demonstrated by the manufacturer's guaranteed specifications and the monitoring/recordkeeping requirements found in d)(2)-(6) above.

Compliance with the 90% capture efficiency standard may be demonstrated by the testing conducted in accordance with PTI P0118138.

d. Emissions Limitation:

PE from any stack serving this emissions unit shall not exceed 27.8 lbs/hr.

Applicable Compliance Method:

This emissions limitation was established using Curve P-1 of Figure 2 of Appendix A to OAC rule 3745-17-11 and an uncontrolled emissions rate of 403 lbs PE/hour.

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", and the procedures specified in OAC rule 3745 17 03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

e. Emissions Limitation:

Visible PE from the stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

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

f. Emissions Limitation:

No visible emissions of fugitive PE from the building egress points.

Applicable Compliance Method

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



g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

(Authority for term: OAC rule 3745-114, OAC rule 3745-77-07(C))